

OCT 21 1963

NILA BANTON SMITH

TEACHER'S GUIDE

— *for* BOOK

II

Be a Better Reader

CANADIAN EDITION

MARION D. JENKINSON

JEAN E. ROBERTSON

PHYLLIS C. SUTHERLAND

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NOTE TO THE CANADIAN EDITION OF THIS TEACHER'S GUIDE

In the preparation of the Canadian Edition of BE A BETTER READER, BOOK II, some selections have been substituted, where applicable, in order to provide a Canadian setting. However, the philosophy of the original series as developed by Nila Banton Smith remains unchanged. The Canadian Edition has retained the developmental sequence of reading skills and the format and types of questions of the original series.

This Teacher's Guide to accompany Book II was thoroughly revised to coincide with changes made in the Canadian Edition of the text.

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TABLE OF CONTENTS

Note to the Canadian Edition	ii
PART I BACKGROUND INFORMATION	1
<u>Chapter</u>	
1 Purpose and Uses of the BE A BETTER READER Series	1
Purpose of the Series	1
Description of the Material	1
Readability Levels of the BE A BETTER READER Series	2
Which Teacher's Can Use These Books?	3
2 Selection and Preparation of the Content in Book II	6
How Topics for the Selections Were Chosen	6
How the Selections Were Prepared	6
How the Skill Program for Special Subjects Was Devised	7
Common Skills	12
Vocabulary Development	13
3 Characteristics of Effective High School Reading Programs ...	15
Developmental Reading	15
Remedial Reading	18
PART II. GENERAL PROCEDURES	21
Standard Procedure	21
Variations of the Standard Procedure	23
Adjustments for Very Poor Readers	23
Adjustments for Very Good Readers	24
Adjustments for Other Grades	24
Report of a Reading Lesson	25
PART III. PROCEDURES AND ANSWER KEYS	
<u>Unit</u>	
1 PROCEDURES FOR TEACHING UNIT ONE: THE AIR AGE ...	31
Chip Brown, Jumper	31
Speed and Space	34
What Makes an Airplane Fly?	36
How Far and How Fast?	39
Reviewing Vowels	41
Reviewing Consonants	43
Applying Vowel Principles	45
Working With Science Words	46
How To Read Fast	46

PROCEDURES FOR TEACHING UNIT TWO:

NORTHLAND ADVENTURE	48
Lobo, The Malemute	48
Yukon, Land of the Yellow Fever	50
Wonder Drugs	52
Numbers and the Yukon	53
Reviewing Silent Letters	54
Reviewing Two-Letter Blends	56
Reviewing Three-Letter Speech Sounds and Blends	56
Reviewing Vowel Sounds	57
Reviewing Word Parts and Their Meanings	58
Working With Mathematics Words and Phrases	60

3

PROCEDURES FOR TEACHING UNIT THREE:

GOOD SPORTSMANSHIP	60
Win the Game	61
What is a Good Sport?	62
How Foods Help To Win the Game	65
Points and Pounds	66
Dividing Words into Syllables	68
Finding the Main Idea in Paragraphs	70
More About Finding the Main Idea in Paragraphs	71
Reading For Details	72
Working With Social Studies Words	73

4

PROCEDURES FOR TEACHING UNIT FOUR: IN THE DAYS

OF CONFEDERATION	74
A Message for Charlottetown	74
Why Did the Provinces Unite?	76
The West is now Spanned with Telegraph Wires	78
Messages and Journeys	79
Dividing Words into Syllables	81
Working With Mathematics Words and Phrases	83
Working With Science Words	83
Outlining Paragraphs	84
Fact or Opinion?	84

5

PROCEDURES FOR TEACHING UNIT FIVE:

OTHER WORLDS	86
The Wonderful Discovery on Mars	86
Climate and the Worlds	87
Our Neighbors in Space	89
Distances and Sizes	91
Prefixes, Suffixes, and Roots	93
Dividing Words of Several Syllables	95
Working With Accent Marks	96
Working With Social Studies Words	97
Scanning for Numbers	97
Organizing Sentences into Paragraphs	98

Unit

6	PROCEDURES FOR TEACHING UNIT SIX: WELDING A DOMINION ..	99
	A Man of Steel	99
	Linking West with East	101
	Voices from Coast to Coast	103
	Reading Graphs	104
	Marking Words With Two Accents, One Vowel Sound for A, E, O and U	105
	Working With Science Words	107
	Finding Causes and Effects	108
	Using an Encyclopedia	109
7	PROCEDURES FOR TEACHING UNIT SEVEN: REBELLION IN THE WEST	110
	Louis Riel, Metis Hero	110
	Why Was There a Rebellion in 1885?	112
	The Bad Lands of Drumheller Tell the Story of the Ages	113
	Reading Formulas	115
	Working With Mathematics Words and Phrases	116
	Speeding Up Your Dictionary Skills	117
	Using an Index in Textbooks	118
	Making Comparisons	119
8	PROCEDURES FOR TEACHING UNIT EIGHT: TEEN- AGERS IN OTHER LANDS	120
	Chased by Crocodiles	120
	Two Teen-Agers in Different Lands	122
	How Food is Preserved	125
	Reading Algebraic Equations	126
	Reviewing Prefixes and Suffixes	128
	Working With Synonyms	129
	Working With Antonyms	130
	Working With Words of Multiple Meaning	131
	Choosing the Right Definition	131
	Finding Things in a Library	131
	Taking Notes on an Encyclopedia Article	132
	Selecting Sources of Information	133
9	PROCEDURES FOR TEACHING UNIT NINE: DEMOCRACY BEGINS AT HOME	134
	Freedom Comes Again	134
	Democracy - The Canadian Way of Life	136
	The Struggle to Reach Salmon Creek	136
	Reviewing Your Reading Skills in Mathematics	138
	Making Generalizations	139
	Reading Key Words Only	139
	Skimming With the Use of Key Words	140
	Critical Reading	140

PREFACE

In the preparation of the Canadian Edition the topics treated are generally pertinent to junior high curriculums. Specific topics pertaining to Canada were selected to promote an appreciation of this country and her people.

Of particular interest to the teachers will be the "Standard Procedure" for the teaching of a lesson discussed on pages 21-23 of the **TEACHER'S GUIDE**, followed by the variation of this procedure for very poor and very good readers.

Regardless of the lesson procedure followed, it is important for the teacher to keep in mind two things:

1. The particular reading skill being developed is of primary importance. The content of the reading selections in **BE A BETTER READER** is only the vehicle by which the reading skill is learned.
2. An important part of reading lessons is the application of the reading skills learned to all types of reading material. That is, each lesson in the **BE A BETTER READER** series must have at least one follow-up lesson in the content areas. For example, following the teaching of a specific skill for reading science material select the same type of material from the student's science textbook and require the students to apply the reading skill for the understanding and learning of the material. Once the student has become alerted to the value and use of a reading skill he should use it whenever required. The teacher's role is to see that this is done.

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PART I BACKGROUND INFORMATION

CHAPTER ONE: PURPOSES AND USES OF THE BE A BETTER READER SERIES

PURPOSE OF THE SERIES

The BE A BETTER READER series is the only graded set of reading skill development books for grades 7 through 12. These books are designed to develop, maintain, and increase the basic reading abilities and study skills needed by junior and senior high school students in working with all types of reading material. The books also develop special skills needed for studying content in the major subject fields of science, social studies, mathematics, and literature. The teacher is provided with complete procedures for using the books and with such additional information about the subject fields as the selections may require.

The practice of teaching reading in high school is expanding very rapidly throughout the country. As a result high school teachers are being encouraged to take courses in the teaching of reading. At the present time, however, large numbers of high school teachers have not been able to avail themselves of training in reading skill development. With this situation in mind, the materials in the BE A BETTER READER series were prepared in such a way that they may be used with success by teachers who have not had special training in the teaching of reading as well as by those who have had such training. Also, even though the books are designed to teach students to read better in the different subject fields, familiarity with the special subjects beyond the teacher's own is not necessary for successful use of the books. The series can be used effectively either in an all-school reading development program or for remedial work with groups or individuals.

DESCRIPTION OF THE MATERIAL

Each of the first three books contains nine units. Each unit contains a story, a social studies selection, a science selection, and a mathematics selection. Several pages of each unit are devoted to improvement of such common skills as use of phonics; use and meaning of prefixes and suffixes; syllabication; rapid reading and critical reading; location of information in tables of contents, indexes, dictionaries, encyclopedias, and libraries; and vocabulary development in special fields.

The content of the last three books of the series is organized differently from the content of the first three.

In the first three books, the separate subject matter skills are taught in units in which a literature selection, a social studies selection, a science selection, and a mathematics selection are integrated around a single unit theme. The opportunity for practice of additional common reading skills is given on pages interleaved between the units. In the upper grades of high school, subject matter becomes so highly specialized that, in Books IV, V, and VI, separate chapters are devoted to the special approaches and skills needed for reading in the different subjects. One chapter is thus devoted wholly to the reading of literature, one chapter to history, one to science, and one to mathematics. These subject chapters are preceded by several chapters designed to improve ability in the common reading skills needed for all fields.

Preceding each selection in all of the books the skills to be given practice are explained to the student, and he is given complete instructions for using these particular skills in his immediate work with the selection. Following the selection, one or more "activities" are provided in which the student applies and checks himself on the use of the special skills he has just practiced.

READABILITY LEVELS OF THE BE A BETTER READER SERIES

In terms of interest, content, and skill needs, Book I of this series is intended for grade 7, Book II for grade 8, and Book III for grade 9. Because of ease of vocabulary and paragraph and sentence structure, each of these books can be used with students at lower instructional reading levels. Book I can be used at fifth and sixth grade reading levels, Book II can be used at sixth and seventh grade reading levels, and Book III can be used at seventh and eighth grade reading levels.

Books IV, V, and VI are intended for grades 10, 11, and 12, respectively, but they can be used flexibly with groups or individuals, as appropriate to their particular reading levels, regardless of school grade. The selections in these books, as measured by the Dale-Chall Readability Scale, are predominantly as follows: Book IV, grade 10; Book V, grade 11; Book VI, grade 12.

Teaching procedures for using a particular BE A BETTER READER book at various grade levels are discussed under the title "Adjustments for Other Grades" in Part II of this Teacher's Guide.

Standardized test scores frequently do not determine the exact grade level of a high school reader. Instead of trying to assign one of these books to a group in terms of a specific grade score resulting from a standardized test, you will usually find it better to try out the different books with the group. Then choose the one that is sufficiently easy so that the students do not experience undue frustration, but difficult enough to challenge their ability and to enable them to attain a higher level of reading competence.

WHICH TEACHERS CAN USE THESE BOOKS?

There are almost as many different administrative arrangements for teaching reading at the high school level as there are schools. Apparently each school is working out plans that are best adapted to its particular curriculum and instructional staff.

Basically, however, there are four plans for teaching reading in the high school which are used more widely than others. There are many variations of these plans, but fundamentally most arrangements can be classified under one of these four headings. This series of reading books will be found useful in teaching reading under any of these arrangements.

Reading Taught by English Teachers

One of the most common arrangements is for the English teacher to teach reading as part of, or in place of, an English or literature course. Such instruction may be offered for a full period or a part of a period and given daily or at intervals through the week. In some places in which reading is carried as a part of an English course, it is taught five days a week for a part of a semester, such as seven weeks or ten weeks.

The English teachers who teach reading will be able to use the BE A BETTER READER books whether they are teaching developmental reading to their students in all of their classes or doing remedial work with groups of poor readers. In either case the English teacher should choose from the series the book that is best suited to the level of each group and proceed with the basic skill development program, going from one book to the next as the students advance.

The English teacher need not be concerned because some of the selections in these books have to do with social studies, science, and mathematics, as well as literature. A very large portion of the content has to do with the development or maintenance of skills that basically fall within the field of English: word pronunciation; vocabulary building; literal comprehension; interpretation and critical reading; finding main ideas; grasping and organizing details; speed reading; and so on. Teaching the skills needed for enjoyment of the narratives is a "natural" for the English teacher. As for the social studies, science, and mathematics selections, specific instructions are given to the student in his text for working with these specialized types of subject matter. Then, too, the selections have been carefully constructed to be self-sufficient insofar as subject matter is concerned; they do not presuppose prior acquaintance with technical details. The Teacher's Guide aids the teacher in giving any additional instructions and explanations that conceivably may be needed. Thus, these books make it possible for any teacher with an English background to develop the reading skills that students need for the special subjects.

Reading Taught by a Reading Specialist

A very common arrangement is one in which one teacher devotes his or her full time to reading instruction. Such an instructor usually has the title of "Reading Teacher," "Reading Specialist," or "Reading Consultant." This teacher may teach developmental reading, or remedial reading, or both. In the past, the reading specialist has devoted his or her time exclusively to groups of students or individuals who were below their normal grade level in reading. Recently, however, there is a strong trend toward adding to the staff a reading specialist who devotes full time to reading improvement for all students in all or several of the high school grades.

If you, as the reading specialist, teach remedial reading, your first step, of course, is diagnosis. After you find the instructional level of the remedial reading cases you are to teach, you will group them according to their reading level and needs, or plan to teach them individually. In either case, select from the BE A BETTER READER series the book that is best suited to each group or individual.

No doubt you have discovered that standardized tests frequently fail to indicate the right instructional level of a remedial case. It is usually advisable to try out different books directly with a remedial case until you find the one that is most appropriate for him. After he has finished that book, he then should be able to use the next book in the series, and so on.

If you teach developmental reading, you will, of course, use a different book at each grade level beginning with Book I.

Reading Taught by a Core Curriculum Teacher

In high schools using the core curriculum, the core teacher often teaches reading for twenty minutes or some other part of the daily schedule. This instruction ordinarily is developmental reading for all students. The teacher would like to teach reading skills in connection with the core problems or topics, but skill development material in reading related to these topics is not available. The BE A BETTER READER texts I, II, and III should prove especially valuable to core teachers in meeting this problem.

If you are a core teacher, you probably teach in grades seven, eight, or nine, for these are the grades in which the core curriculum is most frequently used. Being a core teacher, you know that the majority of your core topics have their roots in social studies or science. The topics of the units in the first three books of this reading series were chosen because they are the ones that occur with highest frequency at the respective grade levels from seven through nine. Therefore, you, as a core teacher, are apt to find reading skill development units in these books that reinforce the subject matter pursued by your students in connection with their core problems.

Reading Taught by Special Subject Teachers

Some schools have attempted to develop a reading program in which each of the special subject teachers is supposed to teach reading skills that are needed in

working with the subject matter in that particular field. Some special subject teachers have made a fine beginning in taking on responsibilities for the teaching of reading. Often, however, special subject teachers find that they have two serious handicaps when they begin to teach reading in their special fields: (1) they usually have not been trained as reading specialists and are not equipped with the background knowledge and techniques necessary for teaching reading effectively; (2) up to this time the reading skills needed in special subject areas have not been clearly analyzed and delineated, and the special subject instructor doesn't know exactly what skills to develop.

The subject teacher who has not specialized in reading can teach the basic reading techniques needed in his or her field with the use of these reading books because of these provisions: (1) the special skills are singled out and named; (2) these skills are developed with the student directly on the pages of his own book; (3) the Teacher's Guides provide additional concrete help to the subject teachers in the way of explanations and procedures; (4) "carry-over" suggestions are given with which the students can apply the skills learned in their reading books to the regular work in their courses.

In cases in which the students are to be taught reading by teachers in the four different areas of specialization, it is suggested that students carry their books with them from class to class. The English teachers may have their students do the sections that have to do with the reading of narratives; special work in word recognition; use of syllabication, antonyms, synonyms, and multiple meanings; and the initial development of such common skills as rapid reading and locating information.

Social studies teachers may work with their students on the social studies selections and special social studies vocabularies. Likewise, the science teachers may teach the science selections and science vocabularies, and the mathematics teachers may teach the mathematics selections and the mathematics vocabularies.

If several teachers work with students who have the same book, it is convenient for each teacher to have the Teacher's Guide that accompanies each of the books the students are using. The teacher will need to consult these guides frequently for procedures to use in teaching the selections in the field. And, of course, the answers to all of the activities are in the Teacher's Guides.

CHAPTER TWO:

SELECTION AND PREPARATION OF THE CONTENT IN BOOK TWO

HOW TOPICS FOR THE SELECTIONS WERE CHOSEN

As previously mentioned, the material in each unit of Book II, Canadian Edition consists of: (1) a narrative; (2) a social studies selection; (3) a science selection; (4) a set of problems in mathematics; and (5) several pages devoted to development of reading skills common to all subjects.

The plot for the narrative in each case was devised or selected with two purposes in mind: (1) to capture the interest of teen-agers; (2) to provide content to motivate the reading of the social studies, science, and mathematics selections that follow.

The problems in each mathematics selection grew out of, and were based upon, the narrative, the social studies selection, and the science selection that immediately precede it. The mathematical processes used in the problems are common to high school arithmetic books.

HOW THE SELECTIONS WERE PREPARED

The stories for the most part were written especially for this book by well known writers of juvenile literature: Carroll Tarre Fenton, Aileen Fisher, Ivy Bolton, William McKellar, Richard Elam, Olive Rambo Cook, and Margaret Alison Johnson. In most cases, a plot was drafted for the story writer and specifications written for developing the story in terms of the particular purposes that the story was to serve. The story writer then wrote the story. Adaptations were made as necessary in order to simplify vocabulary, sentences, and paragraph structure and to adjust total length.

The social studies selections were written especially for this book by social studies specialists. These specialists were procured to do this writing because of the desirability of having the social studies material in the reading book closely approximate the specialized kind of text that appears in social studies textbooks. The writers for the most part are well-known authors of social studies textbooks at the high school level. The names of the writers are: Wallace E.

Lamb, Samuel Steinberg, John Heine, and Edward Kolevzon. As in the case of the stories, outlines were drafted for each article and specifications written for it. Adaptations were also made in the completed article in the interest of simplification and provisions for specific skill development.

The science selections were similarly prepared. So that they might closely approximate the science material that high school students find in their science textbooks, well-known authors of science textbooks and other science specialists at this level were invited to prepare the selections. Their names are: Maurice U. Ames, Gordon Van Hooft, Alden W. Smith, Leo Schneider, Irving Zeichner, Anne E. Burgess.

The sets of mathematics problems were prepared by Donald W. Lentz, co-author of high school mathematics texts, and Francis J. Mueller, Professor of Mathematics at State Teachers College, Baltimore, Maryland. As in the case of the other selections, these problems were prepared to meet specifications drawn up by the author of the series, in order that each set might be integrated with the story, the social studies selection, and the science selection which precedes it, and also to insure inclusion of mathematics topics and processes common to the mathematics texts that were surveyed preparatory to writing these texts.

HOW THE SKILL PROGRAM FOR SPECIAL SUBJECTS WAS DEVISED

Investigators have proved that special reading skills are used in different subject matter fields. Here and there an account of an experiment is found in which the investigator has pulled out a special skill in a certain subject, given students practice in it, and found that marked improvement has taken place.

Up to the time of the preparation of these books, however, no one had reported a thorough study of skill needs in the different subject fields. Such a study was attempted in preparation for writing this series of reading books.

This study consisted of an analysis of widely used textbooks in the different subject fields. In each book, the text itself was analyzed to find out if different patterns of writing were used, since different patterns call for different reading skills. In addition to text analysis, the questions, directions, explanations, and exercises of various types in each of the books were analyzed. All of these aids and exercises in which the students are supposed to make a response are significant because they indicate the ways in which the subject specialist wants students to think and work with material in his particular field so that they may absorb facts, understand content, sense relationships, recall, and make applications.

The skill situations that occurred most frequently in all books analyzed in a certain subject field were those selected for development in the BE A BETTER READER series. The skill analysis made use of textbooks at all grade levels in junior and senior high school. The skill situations listed below were found to be common to several textbooks within a given field and constitute the ones which are provided for in Book II, Canadian edition.

Science

Analysis of high school textbooks in science reveals five distinctive patterns of writing. Each of these patterns calls for a different set of reading skills. One kind of science text is written in the classification pattern in which living things or objects are classified and their likenesses and differences are pointed out. A second pattern is the technical explanation of processes, usually accompanied by diagrams, necessitating very careful reading and continuous reference to the diagrams. A third pattern is found in experiments and consists largely of explicit directions that must be carried out exactly and that call for the formation of a conclusion. There are problem-solving sections in which a problem is stated and explanations of how scientists have solved the problem are given. Then there are sections of text which do not partake of any of these patterns, but instead simply give factual information about some science topic. Such material is usually packed with details and is difficult to read.

The major task in teaching students to read science well is that of training them to identify these different patterns, and then to read the patterns in different ways, using sets of skills which are most effective in getting the meaning from each distinctive pattern.

In addition to the different patterns of text there are other skill situations that occur with high frequency in science books and call for special kinds of reading. These are listed below, after the different patterns of writing. The numbers opposite each pattern or activity indicate the page or pages in Book II, Canadian Edition, where the skills named are taught.

Identifying and using specific skills needed in reading different patterns of science writing: classification of material, 36-37, 92-93, 122-123; detailed factual information, 64-65, 106-107, 125; explanations of processes, 6-7, 50-51, 78-79, 106-107; experiments, 23, 106-107, 122-123; problem solving material, 22-23. Other skills developed in working with science material are: answering specific questions, 22-23, 36-37, 64-65; classifying, 36-37 92-93, 106-107, 122-123; drawing a diagram from an explanation, 6-7; outlining, 42, 43, 44, 58, 64-65, 106-107, 116; drawing conclusions, 106-107, 122-123; reasoning, 122-123; recalling and stating sequential steps in a process, 6-7, 50-51, 78-79, 106-107; interpreting diagrams, 6-7, 50-51, 64, 78-79, 106-107; making generalizations, 125; recalling science facts, 6-7, 22-23, 36-37, 42, 43, 44, 50-51, 58, 63-64, 78-79, 106-107, 122-123; sensing causes and effects in science material, 85, 92-93; finding main ideas and related details in science material, 42, 43, 44, 58, 64-65, 106-107; using boldface and italicized heads to grasp structure of science material, 6-7, 22-23, 36-37, 50-51, 106-107, 122-123.

Social Studies

The content of social studies books is usually somewhat easier to read than science text because social studies writing often resembles narrative, particularly in some of the more recent books. It does, however, have its own distinctive characteristics.

The most common pattern in history books is that of detailed information given in historical sequence to show how each event leads to the next. Reading to sense causes and effects is very important; in fact, the ability to note causes and effects is needed more frequently in social studies books than in any other area. This skill is required occasionally in science, but the social studies field is the one in which this kind of reading is most frequently demanded. Another necessary reading skill in history is that of following time sequence and associating dates with events. The ability to do critical reading and to discriminate between fact and opinion is essential. Ability to read graphs and statistical tables is frequently demanded.

In geography the pattern is also usually that of detailed information interspersed with almost continuous reference to maps and pictures. Map-reading and picture-reading each entails its own cluster of characteristic skills, and these skills are needed in addition to the skills required in grasping main ideas and detailed facts. The abilities to sense cause-and-effect relationships and to make comparisons are very frequently needed. The ability to organize what is read is very often required in working with the exercises in both history and geography textbooks.

Social studies books proper, of course, make use of the combined skills of history and geography books.

The high-frequency situations calling for different kinds of reading skills found in high school history, geography, and social studies books are listed below. The numbers indicate the pages in Book II on which reading skills needed in meeting these situations are developed or given practice.

Applying citizenship information to life situations, 34-35, 120-121. Associating dates with events in sequence, 4-5, 76-77. Critical reading to: discriminate between fact and opinion, 48-49, 59, 63, 76-77, 128; recognize different points of view, 90-91; grasping author's conclusions, 63; test author's conclusions, 63, 77. Determining causes and effects, 4-5, 20-21, 62-63, 76-77, 85. Drawing inferences and giving reasons, 20, 76-77, 104-105, 128. Graph reading, 80-82, 124. Making comparisons, 90-91, 100-101, 104-105. Map reading to: associate products with location, 20; arrive at conclusions, 20-21, 63; making use of a mileage scale, 20; make comparisons, 4; summarize a picture map, 76-77. Finding main ideas in social studies material, 48-49, 90-91, 120-121. Finding topics, 104-105. Grasping details, 4-5, 48-49, 60-61, 100-101, 104-105. Making generalizations, 4, 76-77, 125. Organizing sentences, 73. Outlining, 21, 48-49, 90-91, 100-101, 104-105. Picture reading, 62, 120-121. Recalling historical events in sequence, 4-5. Scanning for numbers, 72. Scanning for dates, 76-77. Summarizing, 90-91, 105, 120-121. Taking notes, 4-5, 48-49, 76-77, 90-91, 100-101, 104-105, 120-121. Understanding citizenship rules, 34-35. Using boldface heads, 4-5, 20-21, 34-35.

Arithmetic

Arithmetic text is unique because it requires methods of reading that differ markedly from those appropriate to narrative and geography, history, or science

text. It is more compact than text in any of the other fields. It is complicated also by numerical symbols woven into sentences along with word symbols; every one of these symbols, whether word or numerical, must be taken into consideration. Detailed directions and exact explanations must be understood and used. Problems that call for a careful weighing of relationships and a high level of reasoning must be solved.

Teachers of mathematics often say, "If he could read, I could teach him mathematics." And they are probably right! For problems constitute the great bulk of the reading text in arithmetic books. Each states some problem situation in words and numerical symbols, and this statement is followed by a question or direction asking or demanding a solution. The problem is a very distinctive pattern of reading in itself. When students try to read this pattern in the same way that they would read a narrative, the result is most unsatisfactory.

This type of content requires a first reading for the purpose of visualizing the scene or situation as a whole. Grasping the setting in which the problem takes place gives meaning to it. This will not be difficult for the student, but he should have his attention called to the need of getting the mental picture of a problem first of all.

Concentrating on the significance of a question at the end of a problem paragraph is a distinctive skill needed in solving arithmetic problems. In problem-solving, everything depends upon the question or direction that usually appears at the end of the problem. Most students need to have considerable experience in reading problems and then telling in their own words what they are asked or told to do.

Other distinct and more complex skills are involved in rereading the problem to analyze it into elements necessary for solution. Students need to reread parts of the problem to get clearly in mind the facts that they are given to use in solving the problem. They need to read the entire paragraph again, to ascertain the relevancy and relation of details leading to a decision in regard to the process or processes to use. In the light of all of this reading and as a check upon it, the next step is to estimate an answer in round numbers to see whether or not it is reasonable. Then the student is ready to write the numbers on paper and do the computation.

Up to this very last step the work has been concerned largely with reading skills, and many of these reading skills are of a type that are not required in connection with reading instruction in any of the other subjects.

Since the great preponderance of the content of mathematics books is given over to problems involving numerical computations, the major emphasis in the mathematic sections of the BE A BETTER READER series is on those reading skills called for in working with such problems.

Reading problems to: grasp the problem as a whole, 8-9, 24-25, 38-39, 52-53, 66-67, 124; answer the question "What are you to find?", 8-9, 24-25, 38-39, 52-53, 66-67, 124; find "What facts are given you to work with?", 24-25, 38-39, 52-53, 66-67, 124; decide what process to use, 38-39, 52-53, 66-67, 124;

estimate answers, 52-53, 66-67, 124. The skills above are applied not only to one-computation, one-step problems but also to problems requiring two computations, 24-25, 38-39, 66-67, and problems having two or more steps, 24-25, 38-39, 66-67. Other skills and numerical understandings developed are: Charting necessary information in solving a problem, 8-9, 38-39, 52-53, 66-67. Following directions and understanding explanations for dealing with numerical symbols and problems, 8-9, 24-25, 38-39, 52-53, 66-67, 80-81, 94-95, 108-109, 124. Interpreting numerical aspects of maps, 20. Reading algebraic equations, 108-109, 124; formulas, 94-95, 124; graphs, 80-82, 124. Statistical statements in context, 20-21, 64-65, 76-77, 116. Recognizing length and relationships of time periods, 4-5, 76-77. Scanning for numbers, 72, 76-77. Using formulas for computing rate of reading, 16-17, 18-19, 20-21, 22-23, 32-33, 34-35, 46-47, 60-61, 64-65, 74-75, 88-89, 92-93, 102-103, 118-119, 122-123.

Literature

Literature is an appreciation subject rather than a skill subject. While the basic skills of word recognition and comprehension are necessary in reading literature, students do not have to master subject matter in literature as they do in social studies or the sciences, nor do they have to develop special skills as in the case of mathematics. Literature is read for the purpose of reliving and enjoying crystallized human experience as portrayed by a gifted writer.

In the first three BE A BETTER READER texts less attention is given to literature than to the other three subjects, because appreciation of literature is something that needs to be developed through oral discussion carefully guided by the English or reading teacher. Narratives are included in these books largely because they are needed as interest-catchers and as a medium for contrasting this type of content with content in the other three subjects. They serve also to furnish leads to selections in the other fields.

A series of comprehension questions follows each narrative. These were not intended for use in developing special skills or appreciations. They were included so that some objective comprehension score might be obtained to accompany the rate score that the student achieves while reading narratives under timed conditions. All narratives are read under timed conditions beginning with pages 18-19, and increases in rate can be expected. Speed without comprehension, however, is meaningless. In the interest of having a check on both comprehension and speed, a set of comprehension questions is given after each story.

A set of discussion questions also follows each narrative, and these questions are the ones that are used to develop deeper meanings, enjoyment, appreciation, and emotional response.

Students are encouraged to enjoy the stories through such activities as: Comparing characters, 18-19, 74-75, 118-119. Comparing settings, 102-103. Deciding upon: action reader would have taken had he been in character's place, 2-3, 32-33, 60-61, 118-119; emotion reader would have felt had the reader been the character, 2-3, 32-33, 118-119. Discussing: choice of words, 2-3, 18-19, 46-47, 74-75, 102-103; outcome if events had been different, 18-19, 32-33, 46-47, 60-61, 88-89; qualities of character, 18-19, 32-33, 46-47, 88-89, 118-119.

Drawing inferences in regard to deeper meanings, 2-3, 18-19, 32-33, 46-47, 60-61, 74-75, 88-89, 102-103, 118-119. Evaluating a character's actions, 18-19, 32-33, 46-47, 60-61, 74-75, 88-89, 102-103, 118-119. Explaining the author's meanings, 2-3, 18-19, 118-119. Finding proof in text, 88-89, 102-103, 118-119. Interpreting colloquial language, 18-19, 75. Locating most exciting or frightening incidents, 46-47, 60-61, 74-75, 102-103; point of greatest stress, 18-19, 102-103; turning point, 2-3, 88-89. Reliving experience of characters, 2-3, 18-19, 32-33, 88-89, 102-103. Sensing: character's emotions, 2-3, 46-47, 88-89, 102-103, 119; reasons for behavior or emotions, 2-3, 32-33, 46-47, 60-61, 74-75, 88-89, 102-103, 118-119. Visualizing pictures and word pictures, 46-47, 74-75, 88-89, 102-103.

Comprehension checks are made on 3, 19, 33, 47, 61, 75, 89, 103, 119.

COMMON SKILLS

There are several important skills that are used in common when reading any kind of material. Some of the common skills do not seem to give high school students much trouble. Many high school students, however, are woefully lacking in others.

Lack of ability to understand meanings is a very general deficiency. The author believes, however, that at the high school level, this general skill should also be broken down and treated as needed in specific subject fields. Therefore, in the BE A BETTER READER series, the skill commonly called comprehension is not taught as one composite skill. This explains why understanding meanings is not listed as one of the common skills.

The skills listed below are commonly applied to all types of subject matter. They are the common skills in which the author has found large numbers of high school students to be deficient.

These common skill needs were determined through the following types of study: (a) analysis of the results of standardized reading tests given to junior high school students; (b) informal diagnosis of junior high school students reading textbooks in the different subject fields; (c) observation of junior high school students as they proceeded with their regular classroom work.

The common skills needing attention as revealed through the sources of information indicated above are listed below. These are reviewed, and in some cases developed, in Book II. The numbers opposite each item indicate the page in Book II on which attention is given to each particular skill.

Introductory Instruction on Certain Common Skills. Common reading skills used in several subjects are given special introductory instruction as follows: Critical reading to discriminate between fact and opinion, 59; to pass judgment on author's statements, 62-63. Finding the main idea in paragraphs, 42, 43. Grasping details, 44. Making comparisons, 100-101. Making generalizations, 125. Organizing sentences into paragraphs, 73. Outlining, 58. Sensing cause-and-effect relationships, 20-21, 85.

Phonics. Awakening in students a keen awareness of the need for using phonics in working out the pronunciation of new words. Reviewing identification, sounds, and applications of: accent marks, 70, 83; consonants and consonant blends, 12-13, 26-27, 28; speech sounds, 28; vowels, 10-11, 14, 26, 29, 83; vowel principles, 14, 26, 29; silent vowels, 14, 26; silent consonants, 26; vowel combinations having similar sounds, 14.

Use of Context Clues. Opportunities to supply words to complete the meanings of sentences are given on pages, 15, 31, 45, 56, 57, 71, 84, 96, 113.

Word Structure. Identifying and grasping meanings of: compound words, 30; root words, 30, 54-55, 68-69, 110; prefixes, 30, 54-55, 68-69, 110; suffixes, 30, 54-55, 68-69, 110. Reviewing syllabication, 40-41, 54-55, 69-70, 83.

Applying a Combination of Word Attack Techniques. Opportunities to combine several different methods of attack in pronouncing new words are given on pages: 2, 4, 6, 15, 18, 20, 22, 31, 32, 34, 36, 45, 46, 48, 50, 56, 57, 60, 62, 64, 71, 74, 76, 78, 84, 88, 90, 92, 96, 102, 104, 106, 118, 120, 122.

Locating Information. Practice in using: dictionary skills, 97, 114; encyclopedia skills, 86-87, 116; index, 87, 98-99; card catalog, 115; several sources of information, 117; choosing the right definition, 114.

Rapid Reading. Instructions on: how to read fast, 16-17; scanning, 72; skimming, 126 127; use of key words, 126 127. Scanning practice in: science for specific topics, 92-93, 122-123; social studies for dates, 76; social studies for numbers, 72, 76. Timed reading of: narratives, 18-19, 32-33, 46-47, 60-61, 74-75, 88-89, 102-103, 118-119; science, 22-23, 64-65, 92-93, 122-123; social studies, 20-21, 34-35.

Use of Boldface and Italicized Headings. In science, 6-7, 22-23, 36-37, 50-51, 106-107, 122-123; in social studies, 4-5, 20-21, 34-35.

VOCABULARY DEVELOPMENT

One reason that students have difficulty in reading science, social studies, and mathematics material is that they encounter specialized vocabularies in these fields. The skillful teaching of reading at the high school level demands attention to the meaning and pronunciation of commonly met words in these different subject areas.

In view of this consideration, several specific sections in Book II are devoted to vocabulary development. This is true also in each of the other books in the BE A BETTER READER series. In each vocabulary section, students become acquainted with the pronunciation and meaning of special words in science, social studies, or mathematics. They are then asked to use these words in sentences that contain blank spaces where the special vocabulary words should be, as a check on their understanding of the special meanings.

The selection of words for vocabulary development in these books was based upon lists resulting from scientific studies made by the author and others. Extensive vocabulary study was made of widely used, up-to-date science, mathematics, social studies, and history books representing all junior and senior high school levels. The specialized words which were common to four books—or in a few instances, to three out of four books—in each subject field were listed as a next step. These lists were then checked with scientific lists which had previously been determined by Barr and Gifford,¹ Brooks,² Cole,³ Curtis,⁴ Dale,⁵ Pressey and Pressey,⁶ Stephenson,⁷ and Stephenson and McGhee.⁸ The common lists resulting were then used as the basis for vocabulary development in these books.

The words finally selected for Book II were common to all lists, with a very few exceptions. These exceptions are new words that have come into high-frequency usage in modern life and the most recent books, but which did not appear in the scientific lists compiled a few years back.

Provisions for special vocabulary work in Book II are indicated below together with the page numbers on which such work will be found.

Vocabulary in special fields: mathematics, 31, 56, 96, 113; science, 6-7, 15, 22-23, 36-37, 50-51, 57, 64-65, 78-79, 84, 92-93, 106-107, 113, 122-123; social studies, 4-5, 20-21, 34-35, 45, 48-49, 62-63, 71, 76-77, 90-91, 104-105, 113, 120-121; narratives, 2-3, 18-19, 32-33, 46-47, 60-61, 74-75, 88-89, 102-103, 118-119. Work with special word types: antonyms, 112; synonyms, 111; multiple-meaning words, 113, 114.

1. Barr, A. S. and C. W. Gifford, "The Vocabulary of American History," Journal of Educational Research, XIX, September 1929, pp. 103-121.
2. Brooks, S. S., "A Study of the Technical and Semi-Technical Vocabulary in Arithmetic," Educational Research Bulletin, 1926, pp. 219-222.
3. Cole, Luella, The Teacher's Handbook of Technical Vocabulary, Public School Publishing Company, Bloomington, Illinois, 1940.
4. Curtis, Francis D., Investigation of Vocabulary in Textbooks of Science for Secondary Schools, Ginn and Company, Boston, 1938, pp. 94-114.
5. Dale, Edgar, "What Business Vocabulary Should We Teach in Junior High School Arithmetic?" School and Society, XXXI, September 20, 1930, pp. 850-895.
6. Pressey, L. C. and S. L. Pressey, "Determination of a Minimum Vocabulary in American History," Educational Methods, XII, October 1933, pp. 205-211.
7. Stephenson, O. W., "The Special Vocabulary of Civics," Journal of Educational Research, XVIII, November 1928, pp. 297-304.
8. Stephenson, O. W. and W. R. McGhee, "Vocabulary Common to Civics and American History," Journal of Educational Research, XXII, June 1930, pp. 55-58.

CHAPTER THREE:

CHARACTERISTICS OF EFFECTIVE HIGH SCHOOL READING PROGRAMS

Generally speaking there are two types of reading programs in high school: developmental and remedial. This chapter contains a discussion of important factors which contribute to successful instruction in each of these programs.

DEVELOPMENTAL READING

What Is Developmental Reading?

Developmental reading is the term applied to reading instruction that is provided to all students at each successive level of development as they pass through the school grades.

Reading is a continuous growth process. We have not yet found the end point of reading achievement. It is entirely possible for all students, even though they are good readers to start with, to improve their reading abilities. Even excellent readers can pass from one new achievement level to the next during their high school years if direct instruction in reading is provided to them in all of the high school grades. Ever increasing numbers of high schools are initiating all-school reading improvement programs throughout the high school years.

Marked improvement in high school reading does not come about simply as a result of incidental teaching of reading or of greater amounts of reading. It comes only as a result of direct and carefully guided instruction and practice specifically designed to meet the needs of high school students.

High school reading instruction should differ from reading instruction in the elementary grades. Foundation for all of the skills should have been laid in the primary grades. Further application, refinement, and extension of these skills should have been made in the middle grades. When students come into the junior high school, there should be few or perhaps no really new reading skills to initiate. Yet reading instruction in junior and senior high school should be different in many respects from that in the elementary grades.

Review Is Necessary. In the first place, continuous review is necessary. Skills developed in the elementary grades must be kept alive in high school. Reading skills do not take root and flourish as the result of a high school lecture or explanation. Nor do they become established by using them in certain grades and then forgetting about them. Consider the case of Tom, a high school student

who continuously stumbled over new words and couldn't pronounce them, although he had been given excellent instruction in methods of attacking new words while he was in the primary grades. When he reached the high school grades, no one had helped him to keep this information freshly in mind and had encouraged him to continue to make use of it. So he just forgot about the whole thing, and his early instruction in this phase of reading was lost. In Tom's case, and in the cases of most students, continuous review and application of all reading skills are necessary throughout the high school years.

Just offering a review of elementary skills, however, is not sufficient. Students in high school must be given guidance in refining these skills and in applying them to material that increases rapidly in difficulty. Concept burden is heavier, density of ideas is more prevalent, abstract symbols are more numerous. Learning to apply the old skills to this more difficult new material is a big step to take. Making this transition is another important characteristic of reading instruction at the higher levels.

At the high school level there should be a shift of emphasis upon several of the basic skills, or certain aspects of these skills, in terms of the changing needs of students in the high school grades. Some of these changes in emphasis will be discussed below.

Study Skills Are Most Important. The study-skills area of reading instruction needs intensive emphasis at this level. I refer to those skills needed by students when studying in the various subject fields: science, social studies, mathematics, and the others. Investigations have shown that many reading skills overlap in different subject areas, but there are also many striking differences. Studies have also shown that when a special subject skill is singled out and given practice, growth takes place. These studies have very great significance for the teaching of high school reading. The implication is that reading and study in the different subject fields can best be promoted by the development of specific skills needed in reading certain kinds of subject matter, in addition to continuous practice on the common skills.

Word Attack Skills Should Be Taught on a Higher Level. Trouble in pronouncing new words is a prevalent difficulty in high school. The vocabulary load in textbooks becomes extremely heavy in these grades. Very few, if any, high school textbooks are graded in vocabulary. Students suddenly have thrust upon them books in which they confront dozens and dozens of new words. Not only are the new words much more numerous than formerly, but they usually consist of several syllables, and affixes are used with great abandon.

All of this means that the average high school student needs to continue the use of all word attack techniques: picture clues, context clues, phonics, structural analysis, and use of the dictionary. These techniques, however, should be taught at a higher level than in the elementary grades and in a context appropriate to the dignity of high school students. Special emphasis should be placed upon syllabication and upon work with roots, prefixes, and suffixes.

Special Subject Vocabularies Need Attention. Each high school subject carries its own special vocabulary with it. One of the most serious handicaps with

which a high school reader has to cope is that of learning the pronunciation and meaning of new words in the special subject areas. Particular attention should be given to vocabulary work in science, social studies, and mathematics.

Instruction in Meanings Should Take on New Emphases. The skill area that is concerned with meanings takes on new dimensions and demands a new emphasis at this time.

We have been prone too often to brand everything that we do in the meaning area with the blanket term "comprehension." In meeting the needs of high school students, careful distinctions must be made. There is, for instance, literal comprehension, in which we get only the direct message as it is stated in so many words in the text. Then there is interpretation, in which we sense less apparent meanings, arrive at inferences, draw conclusions—all of which are not stated in the printed lines. Finally, there is the type of meaning-gathering called critical reading. In doing this type of reading, we not only use literal comprehension and also interpretation but we go further and pass judgment upon the authenticity of the text and the purpose of the writer.

The most pressing needs of high school students lie not in the literal comprehension area but in the interpretation and critical reading areas. These aspects of meanings should receive the strongest emphasis in all high school grades.

Development of Speed Is Essential. The high school student needs to develop greater speed in reading. He needs to increase his rate in order to cover the greater amounts of reading material which he has to cover at this level. He needs to develop a faster tempo in order to be able to meet the heavy reading demands ahead, not only in high school but in college and after. Thousands of adults throughout the country are now coming back to reading centers to learn how to read more rapidly. Speed is one of the easiest skills to develop. It should be taught in our high schools now so that the present generation of students won't have to take speed-reading courses when they become adults. Junior high schools are none too early to begin special work designed to increase rate in reading, and speed instruction should be continued throughout the senior high school. Speed work, of course, always should be accompanied by comprehension development and checks. Increase in speed alone is without value.

Flexibility in the Use of Skills Should Be Stressed. Another need of high school students is that of developing greater flexibility in the use of the different reading skills, including rate. Students at the high school level often use the same skills and the same speed regardless of whether they are reading an easy narrative for enjoyment or a science article to obtain detailed facts. They should be taught to adjust their speed and other skills to the type of content they are reading and the purpose for which they are reading it. Reading versatility deserves much attention at this time.

The needs discussed under the several headings above are among the most important ones which the BE A BETTER READER series was designed to meet. With the use of these books, students should be prepared to enter with assurance and success the new frontiers of college study and adult reading in life beyond school.

REMEDIAL READING

What Is Remedial Reading?

Since such large numbers of students with reading deficiencies are coming into the high schools these days, there is a dire need for basic reading material that will equip these students as rapidly as possible with the basic reading skills they need in working with the high school subjects. One of the most important functions of this reading series is to meet the needs of such students.

The term "remedial reading" is generally applied to instruction provided to those students who are below their normal grade level in reading achievement. This term is rapidly falling into disrepute because it implies that there is some "remedy" which will effect "cures" in reading. The term came into existence when school people first began to work with children who were reading failures. At this stage, efforts were directed toward finding some method, gadget, or particular type of reading content that would work magic in teaching the poor reader to read. As the years have passed, we have come to realize that there is no special reading "remedy" that will "cure" all poor readers. It is widely recognized now that the most effective remedial teaching is just good developmental teaching adjusted to the student's own level of reading achievement and to his particular need of basic skills. Reading improvement would be a better term to use than "remedial reading." Since, however, the term "remedial reading" has come to have such a common usage, the author will use this term in the following discussion to avoid any possible misunderstanding.

If you are a teacher of remedial reading, you know that the basic needs of the poor reader are: (1) material that is easy enough to be within his instructional level; (2) material that is interesting to him; and (3) material that builds the needed skills as rapidly as possible. Briefly the following paragraphs tell how the BE A BETTER READER series meets these needs.

Easy Material Is Necessary. Easy reading material is provided in this series through control of concepts, vocabulary, sentence length and structure, and paragraph length and structure. While the books are based on subject matter suitable for junior and senior high school students, the vocabulary and sentence structure have been simplified. Book I can be used with remedial cases who are as low in reading ability as fifth or sixth grade level; Book II can be used with cases as low as sixth or seventh grade reading level: and so on. Since the books in the series represent so many different levels of difficulty, the remedial reading teacher may start a retarded reader in whichever one of the books is best suited to his instructional level and then proceed to use one successive book after another with him until he reaches his normal grade level. Of course, students who are at fourth grade level or below should begin with elementary readers or other elementary materials.

Interest Factors Are Important. The interest features of these books were especially planned with the remedial reader in mind. Once the poor reader begins to achieve increased skill in reading, he is usually so happy in his achievement

that it doesn't matter too much what he is reading as long as he can pronounce the words, answer the comprehension questions, and gain in speed. At the outset, however, the reading content with which he works should intrigue him.

High school students with reading deficiencies seldom want to read the classics. Nor do they want to read about the marvels of our country, or the achievements of our famous citizens such as John A. Macdonald and Georges Étienne Cartier. We hope they will develop interest in such material later, but they don't possess it to start with. They put such books aside after one glance. But if the teacher brings a book on space ships into the room, they may literally engage in physical combat to see who can take the book home that night. Space travel seems to be the subject of highest interest to remedial readers at the present time. Hence the use of this topic as a basis for several selections in this series of reading books.

As a general subject, science is of more interest to retarded junior and senior high school readers than any of the other subjects. Animals, plants, all living things; the human body and what is good for it; mechanical contrivances and what makes them work; these are science topics which the author has found of special interest to reluctant secondary school readers. These topics are developed throughout this series of books.

In social studies the poor reader usually is not particularly interested in following through the episodes of history. He is interested, however, in the thrilling adventure of some other student of his own age, either in a historical setting, or in the contemporary environment of another country. He is also particularly interested in all transportation facilities and how they work—not only space ships but airplanes, automobiles, boats, and engines of all kinds. Modern communications media such as television, which touches his life closely, are also of interest to him. All of these topics are developed in these books.

Mathematics in general is not of interest to poor readers. Ordinarily they dislike mathematics because they have experienced so many failures and frustrations in this area. Once they learn to read problems well enough to understand them, however, a lot of the trouble is over. In the BE A BETTER READER series, students are taught how to read problems. Interest is added to the content of the problems by tying them in with the subject of the narrative, the science, and the social studies selections in each unit.

Motivating Techniques Should Be Used. In addition to the interest inherent in the subject matter of the selections themselves, several motivating techniques should be used in teaching remedial cases. Each selection in this series is introduced with a motivating paragraph which sets up a purpose for reading the story or article. Each selection within a unit contains leads to the next selection; thus motives grow naturally out of one selection and lead into another. Students keep records of their own growth in comprehension and in adjusting speed to different types of material; this adds to motivation. Students also are continuously shown the practical value of what they are achieving in reading skills through suggestions for carrying these same skills over to their regular subjects. When they do this and find that their study in other subject fields is easier and more productive, they have a strong motive for continuing to learn more worthwhile

reading techniques. All of these interest features cause these books to be especially suited for use in teaching remedial reading.

Basic Skill Development Is of Paramount Significance. While easy material, interest, and motivation are desirable expedients in teaching remedial reading, simply having a remedial case read interesting, easy material will not equip a high school student with the basic skills that he needs in studying science, social studies, mathematics, literature, and other subjects. Basic skills must be built directly and surely.

The basic skills developed in this program are those which have been found to be lacking by observation of several hundred high school students each year. These students are hampered in their study because of reading deficiencies and seek special help in a reading clinic. They may need the help of a psychologist or psychiatrist. They may need medical care or the attention of an eye or ear specialist. They may need the help of a social worker or a speech therapist. But when it come to reading, they need to be taught the basic skills. Once these severely retarded readers are given basic instruction and practice in the fundamental skills at their respective reading levels, their progress is rapid. They soon are able to return to their regular classes in their own schools.

The basic skills, which have proved themselves to be so unusually effective in working with remedial cases under the author's supervision, are the skills which are developed in the BE A BETTER READER series.

The interest, the ease of vocabulary, the number of books of different levels of difficulty, and, perhaps most important of all, the truly basic skill development program: these features combine to cause the books in this series to be especially effective in teaching students who are below their normal grade level in reading.

PART II

GENERAL PROCEDURES

STANDARD PROCEDURE

The teacher needs to develop, amplify, and supervise each lesson in the **BE A BETTER READER** books to get the best results. Possibly some good and dependable readers can use the books independently with profit. Ordinarily, however, the teacher needs to work with the students as they undertake and progress through each lesson. The results will be greatly minimized if the lessons are simply assigned as unsupervised study activities or homework. Superior results are obtained when the teacher personally presents each lesson with clarity and enthusiasm; when he or she supervises the students while they are working through the entire lesson; when he or she has the students carefully check their answers; and when he or she guides discussion concerning the answers.

There is a standard or basic procedure which many successful teachers have found productive of the results they desire to obtain, and which is in keeping with the suggestions above. This procedure, however, is subject to many variations which may be advisable when adjusting to the needs of different groups and different individuals.

The basic procedure will be presented first.

Introducing a New Unit

When you are about to introduce a new unit, have the students read the unit title and look through the titles of the selections within the unit, so that they will have an idea of the subject matter of the unit as a whole. Then have them leaf through the selections again for the purpose of picking out the reading skill or skills that each kind of material will develop. You will find it helpful to refer to the "purposes" sections that follow the selection titles in the Teacher's Guide when you guide student discussion. Make sure that the students understand that they should concentrate on the reading skill or skills developed by each selection, rather than upon subject matter. Make sure, too, that the students see the desirability of improving each reading skill even though they may already have some proficiency in it. Students who already know how to preview, for instance, should be encouraged to apply their knowledge to the problems of increasing their speed and accuracy while previewing.

Teaching a New Selection

1. Have the students read the introductory remarks. Discuss them and supplement them with appropriate remarks of your own.

2. Have them read the directions carefully. Check to see if they really understand what they are to do by asking two or three students to tell you exactly how they are going to carry forward the lesson.

3. If there are word helps at the bottom of the page, have the words pronounced orally, and their meanings given.

4. If the selection is to be timed, make sure that everyone waits to start reading until you give the signal. It will be easier for you to keep time if you give the signal when the second hand is either on 12 or 6.

5. Walk about observing the students as they work (before beginning to flash time cards) to make sure that all students are applying the particular skill or skills upon which they are supposed to be having practice. For example: if they are supposed to be previewing headings only, catch any students who are reading through all of the text in the same old way, and help them to use the technique being concentrated upon.

If a student asks for help on a new word tell it to him quickly, then jot it down for word recognition development later.

6. When some of the students have nearly finished with their reading, at the expiration of each five seconds flash a card with a figure on it representing the total number of seconds that have elapsed since the students began reading. As soon as a student finishes he looks up at the card the teacher is holding and writes down the number on the card as the number of seconds which it took him to read the selection. For example, if the number on the card is 125 when Tom finishes, he makes a note of 125, which indicates that it took him 125 seconds or three minutes and five seconds to read the article. These figures are then written in the appropriate spaces at the end of the selection.

Teachers find it a great convenience to prepare a stack of cards for timing purposes at the very beginning of a course using one of the BE A BETTER READER books. Usually 60 is used as a beginning number; then five is added for the number on each additional card—65, 70, 75, 80, 85, 90, 95, 100, and so on. The cards are held up at intervals of five seconds until all the students have finished reading.

7. Have all students work out their reading rate with the use of the formula in the book. Ask some to volunteer information as to how much gain they are making in rate as compared with their preceding records.

8. Have them do the activity or activities that follow the selection. Supervise this work, making sure that the students are doing what they are supposed to do.

9. When they have finished, give the answers to the activities and let each student check his own work. Have different ones read a sentence or paragraph orally to verify their answers. Enter into any worthwhile discussion that develops.

Finally, have each one record his "Comprehension score" and "WPM" at which he reads, so that all students will have this record for comparative purposes in the future.

10. If some of the words in the selection have given trouble, devote a little time to the development of independent methods of attacking these particular words.

11. At the end of a lesson always urge students to make use of the skill or skills they have been practicing whenever they have a chance, in both their school and outside reading.

VARIATIONS OF THE STANDARD PROCEDURE

The teacher should feel free to vary the basic procedure outlined above in any way that he or she finds helpful in working with a particular group or individual. Several adjustments which some teachers have made are suggested below.

ADJUSTMENTS FOR VERY POOR READERS

Teaching a New Selection

Development of Directions and Procedures. In case the students are severely handicapped in their reading, the teacher sometimes finds it helpful to write the directions for working with a selection on the chalkboard. They are explained and read from the chalkboard before students attempt to read and carry them out from the printed page in the book.

In such cases some teachers write the first paragraph of the selection, itself, on the chalkboard and demonstrate the procedure with the text on the chalkboard.

Development of New Words Before Reading. If the group is having a great deal of difficulty in recognizing new words, it may be necessary to clear word recognition difficulties out of the way by developing several words (in addition to those at the bottoms of the pages) before reading is begun. This word recognition development should be done on the chalkboard. Meanings, as well as pronunciation, should be given attention.

Reading Orally. If students require an unusual amount of help in recognizing words, it may be advisable to have them read the selection orally and without timing, the first time over. Try to help them to work out the pronunciations as they go along and note the troublesome words to use in a word study lesson after they have finished reading the selection orally.

After word recognition difficulties are out of the way, the students may read the selection again under timed conditions, and then do the activities. In extreme cases, timed reading may be dispensed with entirely until such time as students have developed satisfactory skill in attacking new words.

Do not resort to oral reading first, except in cases of students who are severely handicapped in word recognition. Ordinarily, silent reading should be done during the first reading in order to develop speed.

Carrying Out the Activities. Seriously handicapped readers will need to be supervised very closely while working with the activities. Far better to catch a mistake before it is made or while it is being made than to talk about it afterward.

Recording Scores. Even though some teachers find it advisable to dispense with the timing activities with severely retarded students for a while, they continue to have each individual record his "Comprehension score" for each lesson. This is a desirable thing to do.

Developing Independent Methods of Attack. Students often profit greatly by having a ten- or fifteen-minute period at the end of each lesson devoted to the development of and practice on word recognition techniques. This work should be functional, however, making use of words students have actually met and had trouble with in the immediate lesson.

ADJUSTMENTS FOR VERY GOOD READERS

In cases in which teachers use the BE A BETTER READER books with students who are already very good readers but who still desire to make some reading improvement, many of the teacher-guided activities suggested in the basic procedure described above may be omitted. Such students can usually be depended upon to read, carry out the printed directions, time themselves, do the activities "on their own," and record their own scores. Teachers have found that such students profit by teacher-guided discussion, but otherwise they can make excellent gains under self-directed practice.

ADJUSTMENTS FOR OTHER GRADES

The BE A BETTER READER series has been carefully planned for flexibility, so that each book may be used successfully with students at various grade levels. The control exercised over vocabulary, concept, and sentence and paragraph structure has already been mentioned. A similar control has been maintained over the subject matter of the science, social studies, and mathematics selections. While the topics are generally related to subject matter that most students will cover during the school year for which a particular BE A BETTER READER book has been planned, each selection is self-contained; the students are not expected to have a prior knowledge of the technical aspects of a subject. Those few mathematical processes with which some students may be unfamiliar are explained in the lesson-by-lesson procedures to permit the teacher to give any help that may be necessary. You will find, too, that none of the texts states a grade level for which it has been intended. Ninth-graders with reading problems can be started on Book I without being continually reminded that they are using a lower-level text.

As a result of these provisions, many teachers report that they are using BE A BETTER READER books very successfully with lower or higher grades than those with which the books are ordinarily used.

If a teacher wishes to use one of these books for basic skill development with children of normal reading achievement in a lower grade, he or she may well follow the standard procedure that has been described. The few supplementary aids that a particular selection may require can be found in Part III of this Guide, in the lesson-by-lesson procedures. The teacher should plan to devote full time to working with the pupils as they pursue the various activities in each lesson.

If the BE A BETTER READER book is used with children of normal reading ability as a supplement to a basic reader and its accompanying workbook, then perhaps after developing steps 1, 2, and 3 under "Standard procedure," the teacher may find it possible to leave the students to read silently, time themselves (in case timing is required), and carry out the activities independently. In this case the teacher should again join the group for checking, scoring, and discussion. It would be advisable when assigning a lesson from BE A BETTER READER for independent work such as has been described, to check the Teacher's Guide in advance of giving the assignment to make sure that the students receive any special instructions or explanations that ordinarily would be presented by the teacher either before the students read the printed instructions in the text or before they begin the activities.

If one of the BE A BETTER READER books is used with a group having reading difficulties, the procedures suggested under "Adjustments for Very Poor Readers" should be used.

REPORT OF A READING LESSON

The account that follows is a condensed report of a reading lesson taught to a group of high school students. The text of the lesson was "The Causes of Confederation", the second selection of Unit Four of the CANADIAN EDITION OF BE A BETTER READER, BOOK II.

Building Background and Stimulating Interest

Teacher: Look at the picture at the top of page 48, and then read the paragraph opposite the picture. (Give students time to read this). Can you recognize the picture?

Jack: It is a picture of the Houses of Parliament in Ottawa.

Teacher: Why do you think this picture was used to illustrate an article entitled "Why Did the Provinces Unite?"

Dick: After confederation united the provinces, Canada was governed by Parliament which met in Ottawa. The Houses of Parliament are where senators and federal members of parliament meet.

Teacher: Many articles and textbook selections on social studies are like this selection you are going to read. You are going to learn the best way to read much of your social studies materials by practising on this selection. If you learn this lesson well, you will find that your next assignment in social studies will be easier to read and remember.
Read the main title at the top of the page, Michael.

Michael: (reads) "Why Did the Provinces Unite?"

Teacher: (As the children read different parts of the selection orally the teacher notes the words mis-pronounced and uses these later in word recognition activities).
Name or describe a topic similar to this one.

Stanley: I read an article for a report that had the title, "Why Had Canada a Trade Deficit?"

Teacher: Did you have a good report?

Stanley: Well, my teacher said I left out some important facts and gave too many unimportant details.

Teacher: After today, I am sure it will be easier for all of you to find the important facts or ideas in a selection. You will have practice too, today in separating important details from unimportant ones.
David, read the sub-title.

David: (reads) "The Causes of Confederation".

Teacher: How is this related to the main title?

Mary: The provinces united to form a union and confederation means union.

Teacher: Then what would you expect to find out from reading about the causes of confederation?

Jack: I would expect to find out why the provinces united.

Teacher: What we have been talking about is the relationship of ideas. In order to have a well-written selection, the important ideas must be related to one another. You should watch for this as you read. You will learn more about this in your other subjects, especially in Language.
(The teacher will discuss this with other subject teachers. Leading from this, the teacher might suggest to the Language teacher that the making of outlines for essays would reinforce this learning).

Robert: The causes of the Seven Years' War is a similar topic. I noticed that one cause sometimes leads to another, so I had to remember them in order.

Teacher: Did any one else notice the same thing as Robert?
(A short time might be devoted listening to contributions from other individuals).

Developing Vocabulary

Teacher: The sentences above the selection give the meanings and pronunciations of some of the words used in the story. Read these sentences silently.

(A little later). Stanley, read the first sentence.

Stanley: (reads) A bevy means a small group.

Teacher: Give me a sentence using the word "bevy".

Daniel: I walked past a bevy of giggling girls.

Teacher: Correct. (Other students, as called upon, give examples of the use of civil war, faster, horde, hostile, inevitable etc., in sentences.)

Teacher: I want to tell you something very interesting about the word "confederation". You learned its meaning in a previous lesson. Did you ever wonder where our English language came from? Many of our words were borrowed long ago from other languages. Why do people borrow things?

Janet: A person may borrow something he needs but doesn't have.

Jack: Sometimes a person borrows something because it is better than the one he owns.

Teacher: Exactly. There are two reasons why some words were borrowed from foreign languages for the English language.

There was a Latin word "confoederare" which meant, to the Romans who spoke this language, "to join by a league".

(The teacher writes "confoederare" and its meaning on the board).

Find this word in your dictionaries under the word "confederation".

(Students locate the word in their dictionaries.)

Henry: If the "o" were left out, and the "r" changed to "t", the word would be our English word "confederate".

Teacher: (Writes "confederate" on the board). Yes, and it means the same as the Latin word. Through many, many years spelling becomes altered but this is not surprising. I am sure you can imagine ways in which this might happen.

Robert: Confederation has the ending "tion".

Teacher: What is the meaning of the suffix "tion"?

Mary: It means "the state of" or "that which is".

Teacher: Yes. Now let us read the literal meaning of the word "confederation".

Jack, give the meaning of the parts of the word as I point to them.

(Teacher points to "tion" and then to "confedera").

Jack: That which is joined by a league.

Teacher: You will find this is one of the meanings given for "confederation" in your dictionaries. Tracing the origin of words and their meanings is a fascinating study. Here are a few words whose origins and meanings you may study at home.

(Teacher writes on the board "transpose", "judicial", "illuminate").

Reading the Selection

Teacher: We are given directions how to read this historical selection. By following them you will learn a good way to study social studies, and other subjects.

Barbara, read aloud the first direction, then follow it.

(Barbara reads the first direction aloud. Then students proceed to read the selection silently, underlining the most important idea in each paragraph).

Teacher: Now we shall find out if you all agree on what is the main idea in each paragraph. Susan, read the words you underlined in paragraph 1.

Susan: (reads) "By 1864, however, various factors were making union inevitable".

Teacher: Mary, what words did you underline?

Mary: (reads) "The idea of the union of the provinces was not new or original in the eighteen sixties".

Teacher: Which one is correct?

Henry: I think Mary's sentence is the correct one. It gives the cause of confederation.

Janet: The sentence Susan read says that there were several factors but doesn't name any one in particular.

Teacher: What is a factor?

Daniel: I think it means, in this sentence, a cause.

Robert: The factors or causes are named in the other paragraphs.

Teacher: That is right. You all seem to agree that Mary's sentence is the one that contains the main idea, and this is true. Susan's sentence is a transitional one.

(Writes on the board "transitional sentence")

It is so called because it takes the reader from one subject or idea to another. The word "transit" (writes word on the board) means a passage over, a moving from one place to another.

Tom: Our city bus service is called a transit system.

Teacher: Yes, and now you know the reason. You will learn more about transitional words, phrases and sentences in your Language classes.
(The teacher will discuss this topic with the Language teacher).
(Each choice of main ideas in the remaining paragraphs is discussed and the correct ones should be supported by relevant reference to the selection.)

Teacher: On page 49 you will read in boldface type: Activity 1 - Listing Main Ideas and Details. Read the directions carefully. As soon as you finish your list of main ideas we shall check them.
(Teacher moves about the classroom discussing incorrectly written sentences with students who are weak in written language. The written work of all the students will be collected at the end of the lesson and discussed with the Language teacher. Students will be required to make the necessary corrections).

Teacher: Now we shall check your lists of main ideas.
(Students make necessary corrections. There may be some discussion).

Teacher: Now we are going to learn a simple study method. You can use it for studying much of your social studies material and material in other school subjects. You will be surprised to find that using this method will help you learn faster and remember better. Do these steps in order: memorize your list of main ideas; write the list from memory; check to see how well you remember. You may need to repeat these steps.
(Teacher writes the steps on the board).
Remember to try this study method for your assignments.
Now reread paragraph 2 of Activity 1. Follow the directions.
(Teacher moves about the classroom, as before, discussing the written work with individual students).

Teacher: Now you have finished your assignment we will discuss the important details of paragraphs 1, 2 and 3.
(Discussion follows and correct details are given).
(Students apply the study method described above to the outline made).

Teacher: Our time is now up. We have practised finding main ideas and important details in a social studies type of selection. In our next lesson we shall continue this practice using your social textbook and some magazine articles.

(NOTE. The lesson reported above may prove too long for the average lesson period. The teacher may find it necessary to divide the lesson at an appropriate place. A separate lesson period may be required for the preparatory teaching necessary before the students can do Activity II. It is extremely important that some time be used for word recognition activities in connection with words missed in oral reading.)

HOW TO USE PART III

The general procedures given in Part II of this Guide are here amplified with specific suggestions and aids for use with the individual selections and practice pages. Where appropriate, material has also been provided for chalkboard or discussion activities to supplement activities in the text. For example, an additional question, and its possible answers, is given for the selection "Chip Brown, Jumper" (text pages 2-3), and an additional activity is suggested for "What Makes An Airplane Fly?" (text pages 6-7).

Multiple answers are provided for discussion questions which students may variously interpret. Mathematical processes which the students may have forgotten are carefully explained so that the teacher can provide whatever assistance is needed.

It is hoped that the teacher will make full use of the helps offered in this section. They will contribute much to the successful use of BE A BETTER READER, Book II.

PART III PROCEDURES AND ANSWER KEYS

Procedures for Teaching

UNIT ONE

THE AIR AGE

(Pages 2-17)

Presenting Book II

Have the students read the title of the book. Explain that this book is planned to help them become better readers in all of the reading that they do.

Ask them to turn to page 1, where they will find the message "To The Student." Have them read this message orally, a paragraph at a time. After they have read each paragraph, ask pertinent questions and conduct discussion about their personal knowledge of reading skills and their own reading habits.

Ask each one to try to decide which of the skills he thinks he, personally, might most need to improve; and in which of the subject areas he has especial needs for learning to use better techniques in reading the content.

Invite the students to tell what they think this book might contain. Let them leaf rapidly through the pages to get a general idea of its contents.

Selection of Topic

The topic for the first unit was chosen because of its interest appeal to high school students, because of its prominence in current social studies and science books and in periodical literature, and because of its usefulness in giving experience in skills needed for reading related material in several different subject fields.

CHIP BROWN, JUMPER

(Pages 2-3)

Purposes

The purposes of this narrative are: (1) to provide a story of strong appeal to high school students; (2) to develop appreciation through guidance in drawing inferences concerning deeper meanings, attempting to relive vicariously the experiences of a character, deciding upon the emotion the reader would have felt if he had been in the character's place, deciding upon the action the reader would have taken had he been the character, and recognizing the turning point in a story; (3) to check literal comprehension; (4) to furnish leads into the social studies, science, and mathematics selections that follow.

Procedure

Let the students discuss the picture. Ask them to read the unit title and the story title. Invite comments. Have them read the paragraph to the right of the picture. Ask if they think they can "live through the story with Chip."

Have them read the word helps and pronounce the words aloud. Give assistance with any words that cause trouble, explaining the pronunciation in terms of the diacritical markings. If you have a very slow class, write the words on the chalkboard, with their respective respellings, and have different students pronounce them and give their meanings.

If your students are average or above-average readers, let them read the entire story silently for the purpose of finding out what Chip's experience was. Then go on directly to the comprehension questions, to which they should write the answers independently.

If the group is composed of students who are seriously retarded in reading, it may be advisable for them to read orally, one paragraph at a time. Motivate the reading of each paragraph with a question or direction, such as, "What did the man do in the first paragraph?"; "What did he say in the next paragraph?"; and so on.

If the students are so deficient in reading that they have trouble pronouncing some of the words during this oral reading, help them to work out the pronunciations at the time of the difficulty, if you can do this so quickly that it will not interfere with the flow of thought and enjoyment of the story. Otherwise, just tell them the word, jot it down on a pad, and develop its pronunciation with them on the chalkboard after the oral reading is finished.

Then, after you have developed the words that gave trouble, have the students reread the story silently to develop speed and fluency once word-recognition difficulties are out of the way. Be sure to give some purpose for rereading, such as finding additional parts of the story they would like to have pictured. Urge them to read along as fast as they can, this time. When they have finished this silent reading of the entire story, let them tell which additional parts they would like to have pictured.

Next, let these remedial cases answer the comprehension questions. You may find it necessary to help them in reading the questions, and perhaps in writing or spelling the words needed in the answers. But do not help them with the content of the answers. These questions are to check their literal understanding of what they have read.

When students have finished writing their answers, read the answers below to them, and let each one check his answers to see how many he had right. The student's wording of the answers doesn't have to be exactly like the wording in the answers given below. As long as a student's answer shows that he got the meaning accurately, count it as correct.

Have each student multiply by 10 the number of his correct answers to get his comprehension score.

If time permits, have the students who missed questions find the parts of the story where the questions are answered. Average students can be asked to underline these parts. Seriously retarded students may be asked to read these parts orally.

The discussions questions are provided for the purpose of aiding students to "read between the lines"—to seek deeper interpretations and to develop deeper appreciations. They are not to be scored.

These questions should be discussed orally with the group. Encourage different individuals to give their own personal answers. In some cases, there is no one correct answer. Question 5 is an example, however, of a question which does have only one correct answer. In working with discussion questions throughout the book, let each student express his ideas in his own way.

Answers below probably will be the ones most commonly given; in some cases, alternate responses have been suggested. Accept various responses for all questions except 1 and 5.

Answers

Comprehension Questions

1. He had written an article on airplanes.
2. He fastened his seat belt.
3. It looked like a black beetle.
4. He tried to put it out.
5. He adjusted the straps on his parachute.
6. He told Chip to jump, count ten, and pull the ring.
7. One should relax, crumple up, and roll over.
8. In a dry ditch
9. He wrapped it in a wet handkerchief.
10. To a ranch house

Discussion Questions

1. A curved, sharp nose like a hawk's beak
2. (a) He thought his work was too important to be wasted on a schoolboy.
(b) He didn't like the idea of being a chauffeur for a boy.

3. (a) Yes. The story says he led the way to "the" plane. (b) No. There might have been several planes that looked like silver birds when they arose.
4. No. He was too frightened (or startled) to scream.
5. To open the parachute
6. Yes. (a) Whether I was going to land safely (b) What to do when I landed
7. (a) He admired Chip because he was brave. (b) Chip had been helpful to him. (c) He was glad Chip had landed safely.
8. (a) When the fire broke out. (b) When he had to ask Chip to jump. (c) When he hurt himself: he must have wondered if Chip were all right. (d) When Chip came toward him after he, the pilot, had landed and hurt his ankle. (e) When Chip got water for the ankle.

Additional Question

In order to promote further discussion you might ask, "What was the difference between a conclusion and a fact, as the pilot thought of these two things?"

Answer

Possible answers might be: (a) The conclusion was something that the pilot had thought, while a fact was something he knew to be true. (b) The pilot's conclusion depended on his personal opinion; a fact is something everyone would recognize as true.

SPEED AND SPACE

(Pages 4-5)

Purposes

To develop the following skills for use in reading social studies material: (1) using boldface headings in previewing the main topics of a historical selection; (2) associating dates with events in sequence; (3) recalling historical events in sequence; (4) ascertaining causes and effects; (5) reading maps to make comparisons.

Procedure

Have the students read the introductory paragraph and Paragraph 1 of the instructions. Discuss differences between the contents of a story and a social studies article.

Work with the students as they read instructions in Paragraph 1 and make their comparisons.

Read through the remaining directions with the students. Check their understanding of these directions by having some of them tell you exactly what they are going to do.

Have students read the meanings and pronounce the new words in the word helps. Supplement this development with chalkboard work if the group is made up of very poor readers.

Have them read the boldface headings. Reading such headings throughout a selection before reading the text under each heading may be a new procedure if the students have not worked with Book I. Supervise them carefully to make sure that they read only headings the first time over, and that they do Activity 1 before reading the text under the boldface headings.

When the students are ready to read the selection carefully, it may be necessary for you to help them find the first cause of aircraft developments: "Men always have wanted to fly." After they have the idea of looking for causes and effects, they probably can continue with their reading independently.

If, however, you are working with students at a very low level of reading ability, you may find it advisable to follow a special procedure similar to that suggested for the preceding narrative: (1) oral reading of boldface headings; (2) oral reading of each paragraph to find causes and effects; (3) development of and practice on words that you jotted down as giving trouble during the reading; (4) rapid, silent rereading for a different purpose, perhaps to find the names of all the men and the wars that have furthered interest in developing aircraft.

In either case, Activity 1 should be done following the reading of the boldface headings, and Activities 2 and 3 should be done following the careful reading of the article. For scoring purposes, each answer in Activities 1 and 2 is worth 12 1/2 points.

Answers

Read these answers to the students as they check their work.

Activity 1—Summing Up Boldface Headings

First Period: The first airplane flights

Second Period: Interest spurred by World War I

Third Period: Travel and industry hasten airplane development

Fourth Period: New developments spurred by World War II

Activity 2—Finding Causes and Effects

1. Men have always wanted to fly.
2. World War I, 1914 to 1918, caused men to think of uses the plane might have in warfare.
3. Some of these: great growth in the airplane industry; larger, safer, faster planes; new landing fields; enlarged runways; more workers; other industries resulting from aircraft manufacture

4. Man wants to go faster and farther.

Activity 3--Remembering Dates

Have the students prepare time lines showing important events in the development of aircraft, and their respective dates. After their time lines are finished, have them correct their time lines from the answers they give you. Then ask them to write these events and dates from memory without referring to their time lines. They should check their lists with their corrected time lines.

Show the students the time line on the following page to give them an idea of the format.

Write these directions on the chalkboard:

Draw a vertical line 7 1/2 inches long. Mark the line into sections with short horizontal lines 3/8 of an inch apart. These short lines should be drawn on the left side of the vertical line. Each of these sections is to represent 4 years.

Now draw longer horizontal lines to the left of the vertical line to divide the vertical line into five twenty-year periods. Each of these twenty-year periods will contain five of the sections made by the shorter line.

Write 1900 at the top of the perpendicular line, and these dates in order, on each of the longer horizontal lines: 1920, 1940, 1960, 1980.

Draw a heavy line to the right of the vertical line to show the date of each event mentioned in the selection. Write the date, and then write a short sentence telling what the event was. If two events happened in the same year, put the second event after the first, on the same line.

Some additional dates of rocket developments and space explorations have been added to the time line, in parentheses. You can use these to create additional student interest. If possible, consult the current World Almanac and a newspaper to include the most recent events.

Applying What You Have Learned About Reading in Social Studies

Have the students read the last paragraphs on the page. Invite discussion. Place your personal recommendation back of the instructions to try out the techniques which they have been learning when studying in their social studies texts.

WHAT MAKES AN AIRPLANE FLY?

(Pages 6-7)

Purposes

To provide a science selection to give students practice in: (1) identifying the science pattern that explains a process; (2) reading boldface headings to find what processes are explained; (3) using special techniques in reading this pattern

THE DEVELOPMENT OF AIRCRAFT

1900	1903, WRIGHT BROTHERS MADE FIRST FLIGHT.
	1908, U.S. NOTICED WRIGHTS. CURTIS FLEW ONE MILE.
	1909, BLERIOT FLEW ACROSS ENGLISH CHANNEL.
	1913, WORLD WAR I, AN ERA OF PROGRESS, BEGAN.
1920	1918, WORLD WAR I, AN ERA OF PROGRESS, ENDED.
	1926, GODDARD INVENTED THE ROCKET.
	1927, LINDBERGH FLEW FROM NEW YORK TO PARIS.
1940	1939, WORLD WAR II, AN ERA OF PROGRESS, BEGAN.
	1945, WORLD WAR II, AN ERA OF PROGRESS, ENDED.
	(1949, U.S. ARMY TWO-STAGE ROCKET REACHED A HEIGHT OF 250 MILES.)
	(1954, SINGLE-STAGE NAVY ROCKET REACHED A HEIGHT OF 158 MILES.)
1960	(1957, RUSSIANS LAUNCHED FIRST SATELLITE.)
	(1958, UNITED STATES LAUNCHED ITS FIRST SATELLITE, THE EXPLORER.)
	(1961, RUSSIANS PUT MAN INTO ORBIT. U.S. LAUNCHED MANNED SPACE FLIGHT.)
	(1962, U.S. PUTS MAN INTO ORBIT.)
1980	

of science writing; (4) interpreting a diagram; (5) drawing a diagram; (6) recalling sequential steps in a process.

Procedure

Ask the students if they can tell what makes an airplane fly. Suggest to those who cannot that they read the selection and find out. If some think they know what makes an airplane fly, ask them to read for the purpose of checking their opinion.

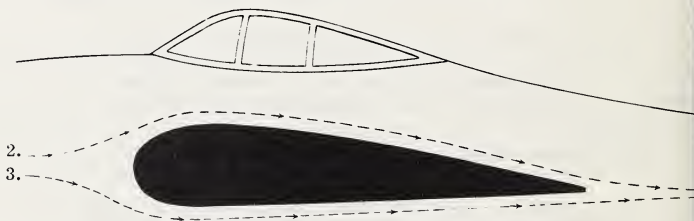
Let them discuss the diagram and name its parts.

Since this is the most difficult pattern of science writing to read, it would be advisable for you to work with the students as they read the five instructions. Make sure that they understand how to attack and read this kind of material. Each answer in Activities 1 and 2 is worth 12 1/2 points.

Answers

Activity 1—Drawing an Airplane Wing

1. Diagram of an airplane wing similar to the one below:



4. The air flows faster over the top of the wing and lessens the air pressure.

Activity 2—Explaining a Process

1. The motor is turned on.
2. The propeller blades begin to spin, pushing the air backward.
3. This forces the airplane forward.
4. When the propeller spins very fast, the forward force pulls the plane at high speed.

Additional Activities

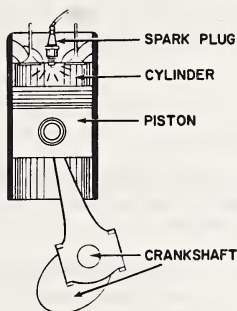
You may write on the chalkboard or dictate these additional activities.

1. Draw a diagram of a cylinder with a piston and spark plug. Label each of these parts.

2. Give the steps of the four-stroke cycle.

Answers

1.



2. a. The intake stroke is a downward movement of a piston, drawing a gas-air mixture into the cylinder.
- b. The compression stroke is an upward movement that squeezes the gas-air mixture into the top of the cylinder. At the end of this stroke, the spark plug shoots a spark into the mixture.
- c. The expansion or power stroke is a strong downward movement that results from the explosion of the gas-air mixture. This is the stroke that furnishes power to move the plane.
- d. The exhaust stroke is an upward movement that forces the burned gases out of the cylinder.

Applying What You Have Learned About Reading Science

Take time to read and discuss this application with the students. They should be urged to use the techniques which they learned in reading this selection. The techniques should be used with science material which explains processes wherever the students find it.

HOW FAR AND HOW FAST?

(Pages 8-9)

Purposes

(1) To impress upon students the fact that they should read mathematics differently from other kinds of material; (2) to acquaint them with overall techniques to use in reading mathematics; (3) to instruct them always to read to grasp the problem as a whole; (4) to give them specific practice on the first step in the effective reading of problems, definitely deciding what they are to find in one-step and two-step problems; (5) to chart this information for a series of problems.

Procedure

Have students read and discuss the introductory paragraphs as usual. Then have them read the entire set of instructions. Discuss each numbered instruction with them as they go along.

Work with the students in showing them how the first step was applied to the first problem. If necessary, work with them in applying the instructions to additional problems.

When you are sure that the procedure is established, let them continue with the work independently.

Explain that they may compute the problems if they have time, after doing the reading work and answering the questions. The main emphasis, however, should be on reading the problems.

If you are working with remedial students, emphasize the fact that they need to spend a lot of time reading and thinking about a problem before they even try to compute. Perhaps 80 or 90 per cent of their time should be spent in reading and thinking, perhaps 10 or 20 per cent of their time in actually working with figures on paper. It is of no use to do a lot of figuring unless they know just what to do. They can find out what to do only by reading the sentences in the problem very carefully, making sure that they get from the sentences all of the meanings that they need for solving the problem.

If you are working with developmental students of average or above-average reading ability, you may use the mathematics selections in this book to develop speed as well as accuracy. Discuss the instructions as usual, and use the first problem or two as classwork to make sure the students understand what to do. Then let them go ahead on their own, answering the questions, applying the other procedures mentally, and computing the problems. Since working "against the clock" is the best way to check speed-development, you may find it valuable to use time cards so that the students can keep track of their progress and compare their individual times with those of the rest of the class. The accuracy of their answers will serve to check reading comprehension. Students making errors will need to slow down.

Answers

Problems on Air Travel

Answers to Questions

1. Average number of passenger-miles flown per month
2. How far a plane could travel on 12,000 lbs. of fuel
3. How many hours and minutes are saved per trip

Answers to Problems

1. 1,938,394,000 passenger-miles
2. 2,000 miles
3. 2 hours, 6 minutes

Answers to Questions

4. (a) Whether the Wright engine weighed more or less than 1.3 lbs. per horsepower
- (b) How much more or less
5. How many hours and minutes are saved per trip?
6. The average cost per plane

Answers to Problems

4. (a) more
- (b) 12.87 pounds per horsepower more
5. 1 hr. 55 mins. approx.
6. \$5,800,000

Applying What You Have Learned About Reading Problems

Discuss with the students the advisability of rereading parts of problems in their mathematics books to decide definitely on what they are to find. Students who have difficulty in reading problems should be urged especially to do this.

REVIEWING VOWELS

(Page 10)

Reviewing the Long and Short Sounds (page 11)

These are the first of several pages in the early part of this book devoted to phonics. Many students have difficulty in pronouncing the large numbers of new words that they meet in their high-school reading. Word recognition is the most basic of the reading skills. If students can't pronounce the words, they are lost insofar as understanding reading content is concerned. Phonics is the chief aid to word recognition. For these reasons phonics is given rather heavy emphasis in the first two units of this book. The important skill of independence in word recognition should be established as early as possible in a skill-building program, for this skill is the foundation upon which all other skills are built.

Phonics is generally taught in the primary grades and usually given some attention in the middle grades. But even so, the majority of high school students seem to be lacking in phonic knowledge and make very little use of phonics as an aid in pronouncing new and difficult words. Like many of the other skills developed in the elementary school, phonics needs to be reviewed and kept alive throughout the high school years.

The reviews in this book are more difficult than the usual phonics work in the grades, and they are presented in a manner suitable to the dignity of high school students. The teacher should keep this in mind in presenting the lessons and should take care to let the students know that he or she realizes that they have had similar work in previous grades. Continuously stress the reasons that it is helpful for them to review and make use of phonics.

Purposes of Pages 10 and 11

(1) To awaken in students an awareness of the need for phonics in working out the pronunciation of new words that they will meet in their reading in

different subjects during the year ahead; (2) to let them know that the author and you, the teacher, recognize that phonics is not new to them; (3) to keep alive information that students have previously learned about vowels; (4) to give practice leading to the instant recognition of the long and short sounds of vowels.

Procedure

The work on these pages should be approached carefully with students. Otherwise they may develop the attitude that they are wasting their time in working with the vowels that they learned in the elementary grades.

As a matter of fact, many high school students are lacking in ready recognition of vowels within words, and even in the recognition of the long and short sounds. Such recognition is basic to work with syllabication that will be emphasized later in this book. Suggest to students that since the recognition of vowels is basic to other work that they will have later, it would be a good idea to try themselves out to see if they are as good in recognizing vowels and the long and short sounds of vowels as they think they are.

Have the students read the introductory paragraphs and discuss these paragraphs with them. Ask them to read the instructions. Check to see if all of them understand what to do. If not, give additional explanations. It may be necessary for you to review the long and short sounds of vowels.

Answers

Finding Words That Begin with a Vowel

1. ankle 2. invent 3. effect 4. odd 5. engine 6. era 7. unit 8. industry

Finding Words That End with a Vowel

1. extra 2. waste 3. coffee 4. saliva 5. plasma 6. cacti 7. radio 8. volcano

Finding Words with One Vowel in the Middle

1. jet 2. stand 3. ton 4. grunt 5. win 6. dip 7. skill 8. sum

Reviewing the Long and Short Vowels Sounds

Mark a

- | | |
|-------------------|-------------------|
| 1. <u>1</u> āge | 6. <u>7</u> rāsh |
| 2. <u>7</u> lānd | 7. <u>1</u> āble |
| 3. <u>7</u> strāp | 8. <u>1</u> gāme |
| 4. <u>1</u> sāve | 9. <u>7</u> bāck |
| 5. <u>1</u> lāke | 10. <u>7</u> plān |

Mark e

- | | |
|-------------------|--------------------|
| 1. <u>8</u> bēst | 6. <u>8</u> prēss |
| 2. <u>2</u> wē | 7. <u>2</u> hēlium |
| 3. <u>8</u> fēd | 8. <u>8</u> tēnd |
| 4. <u>2</u> cēdar | 9. <u>2</u> dēhorn |
| 5. <u>8</u> rēst | 10. <u>8</u> fēd |

Mark i

- | | |
|------------------|-------------------|
| 1. <u>9</u> tĭn | 6. <u>9</u> whĭp |
| 2. <u>9</u> lĭck | 7. <u>9</u> pĭck |
| 3. <u>3</u> sĭze | 8. <u>3</u> prĭce |
| 4. <u>9</u> fĭsh | 9. <u>3</u> mĭld |
| 5. <u>3</u> tĭme | 10. <u>3</u> mĭne |

Mark o

- | | |
|--------------------|--------------------|
| 1. <u>4</u> mōld | 6. <u>4</u> chōke |
| 2. <u>10</u> flōck | 7. <u>10</u> frōm |
| 3. <u>4</u> snōw | 8. <u>4</u> rōde |
| 4. <u>10</u> jōb | 9. <u>10</u> bōx |
| 5. <u>4</u> gōld | 10. <u>10</u> spōt |

Mark u

- | | |
|-------------------|---------------------|
| 1. <u>5</u> ūse | 6. <u>11</u> drŭg |
| 2. <u>11</u> pŭp | 7. <u>11</u> rŭdder |
| 3. <u>11</u> rŭsh | 8. <u>5</u> ūnion |
| 4. <u>5</u> fŭel | 9. <u>11</u> hŭsky |
| 5. <u>5</u> valŭe | 10. <u>11</u> thŭs |

Respell and Mark y

- | | |
|-------------------------|--------------------------|
| 1. <u>6</u> fly (ī) | 6. <u>6</u> typhus (ī) |
| 2. <u>12</u> hymn (ĭ) | 7. <u>6</u> try (ī) |
| 3. <u>12</u> system (ĭ) | 8. <u>12</u> physics (ĭ) |
| 4. <u>6</u> why (ī) | 9. <u>6</u> sky (ī) |
| 5. <u>12</u> lymph (ĭ) | 10. <u>12</u> rhythm (ĭ) |

REVIEWING CONSONANTS

(Page 12-13)

Purposes

(1) To review ready recognition of the consonants; (2) to check ability to recognize the sounds of consonants when they occur at the beginning of words and at the ends of words.

Procedure

Students should have no trouble in reading the first two paragraphs and in carrying out the directions under the heading "Recognizing Consonants."

In working with the test of initial consonant sounds, name the pictures for the students. Then have them name the pictures. This prevents the error of having them call a picture by a name that was not intended.

The names of the pictures on page 12 are:

- | | | | |
|--------------|------------------|-------------|------------|
| 1. telephone | 2. fish | 3. jelly | 4. monkey |
| 5. balloon | 6. lion | 7. worm | 8. soldier |
| 9. kite | 10. nail | 11. rake | 12. zebra |
| 13. doughnut | 14. handkerchief | 15. penguin | 16. vest |

Have the students read the paragraphs of instructions above the pictures. Ask two or three different ones to tell exactly what they are going to do. If some have difficulty in understanding the directions, draw a box on the chalkboard. Write g f b beneath the box. Demonstrate how you would carry out the instructions in finding and marking the consonant with which the word box begins.

When all students understand the technique and know the names of the pictures, have them circle the correct consonant under each picture.

Proceed in the same way in giving the test on the sounds of the final consonants. Since the technique is somewhat different, you may need to develop it through the use of a chalkboard sample, using words instead of pictures. The words below may be used for this development. The consonant which comes at the beginning of one word and at the end of another word is m.

milk m B

house

drum m E

The names of the pictures on page 13 are:

- | | |
|-----------------------|------------------------|
| 1. tiger, cat, money | 2. hand, leaf, fan |
| 3. girl, boat, flag | 4. log, plate, ball |
| 5. tub, basket, fan | 6. kitten, bread, milk |
| 7. table, drum, mouse | 8. map, pail, book |
| 9. duck, post, bird | 10. hen, goat, nose |
| 11. soap, pail, horse | 12. ring, tomato, door |

Answers

Recognizing Consonants

a b c d e f g h i j k l m n o p q r s t u v w x y z

b c d f g h j k l m n p q r s t v w x y z

Checking Yourself on the Sounds of Consonants

- | | | | |
|--------------|--------------|--------------|--------------|
| 1. <u>t</u> | 2. <u>f</u> | 3. <u>j</u> | 4. <u>m</u> |
| 5. <u>b</u> | 6. <u>l</u> | 7. <u>w</u> | 8. <u>s</u> |
| 9. <u>k</u> | 10. <u>n</u> | 11. <u>r</u> | 12. <u>z</u> |
| 13. <u>d</u> | 14. <u>h</u> | 15. <u>p</u> | 16. <u>v</u> |

Consonant Sounds at the Ends of Words

1. tiger <u>t</u> B	2. hand	3. girl <u>g</u> B	4. log <u>l</u> B
cat <u>t</u> E	leaf <u>f</u> E	boat	plate
money	fan <u>f</u> B	flag <u>g</u> E	ball <u>l</u> E
5. tub <u>t</u> B	6. kitten <u>k</u> B	7. table	8. map <u>p</u> E
basket <u>t</u> E	bread	drum <u>m</u> E	pail <u>p</u> B
fan	milk <u>k</u> E	mouse <u>m</u> B	book
9. duck <u>d</u> B	10. hen <u>n</u> E	11. soap <u>p</u> E	12. ring <u>r</u> B
post	goat	pail <u>p</u> B	tomato
bird <u>d</u> E	nose <u>n</u> B	horse	door <u>r</u> E

APPLYING VOWEL PRINCIPLES (Page 14)

Purposes

(1) To review and apply three of the important vowel principles; (2) to review vowel combinations that have similar sounds.

Procedure

The instructions on page 14 should be sufficient for most students. For seriously retarded students, additional explanations of the vowel principles and of the similar sounds of vowel combinations may be necessary.

Answers

Numbering Words

a. <u>1</u> score	g. <u>2</u> luck	m. <u>3</u> treat	s. <u>1</u> spore
b. <u>3</u> groan	h. <u>3</u> goal	n. <u>1</u> Jane	t. <u>3</u> free
c. <u>1</u> phrase	i. <u>2</u> fact	o. <u>2</u> midst	u. <u>1</u> case
d. <u>3</u> team	j. <u>3</u> sweep	p. <u>3</u> may	v. <u>1</u> base
e. <u>2</u> task	k. <u>3</u> ray	q. <u>1</u> whole	w. <u>3</u> fail
f. <u>3</u> beast	l. <u>1</u> game	r. <u>2</u> dim	x. <u>1</u> rate

Writing Words

Long a Sound

avail	contain
strain	failure
grain	trail

Long e Sound

treat	defeat
speed	leap
leave	creek

Long o Sound

coal	dough
roam	hoe
oats	gourd

Long i Sound

dried	tie
pie	guy
replied	lie

WORKING WITH SCIENCE WORDS (Page 15)

Purpose

To familiarize students with the pronunciations and special meanings of technical words that they will commonly meet in their science texts.

Procedure

Have the students read the first paragraph, and check to see if they understand what to do. Then have them read the paragraph at the heading of each column. After making sure that they understand what to do, let them work with the entire page independently.

When checking the results of their work, have them pronounce the words in the left-hand column orally.

Answers

1. antibodies	5. virus	9. poliomyelitis	13. plastic
2. cortisone	6. streptomycin	10. fluorine	14. Bakelite
3. hormones	7. aureomycin	11. irradiation	15. synthetic textiles
4. antibiotics	8. Jonas Salk	12. detergents	

HOW TO READ FAST (Pages 16-17)

Purposes

(1) To provide students with a check on their reading habits which prevent speed; (2) to give them constructive suggestions for overcoming undesirable

habits; (3) to instruct them in some of the techniques of rapid reading; (4) to give practice in the timed reading of a selection; (5) to teach a method of computing rate of reading.

Procedure

The instructions on these pages should be adequate. Supplement them, however, at any point and in any way that seems advisable for the group with whom you are working.

Discuss the speed and comprehension scores after the students have computed them. Let individual students decide whether they should work harder on speed or on comprehension, or on both.

Answers

Checking Your Understanding of the Story

- | | | | | |
|-------|-------|--------|--------|--------|
| 1. No | 2. No | 3. No | 4. Yes | 5. Yes |
| 6. No | 7. No | 8. Yes | 9. Yes | 10. No |

Procedures for Teaching

UNIT TWO

NORTHLAND ADVENTURE

(Pages 18-31)

Selection of Topic

This unit topic was chosen because it is inherently interesting to high school students, and because phases of this topic are commonly taught in the different subject fields.

LOBO, THE MALEMUTE

(Pages 18-19)

Purposes

(1) To provide a story of strong appeal to high school students; (2) to develop appreciation through the activities of seeking deeper meanings, reliving vicariously the experience of a character, deciding upon outcome if events had been different, explaining the author's meanings, sensing a character's emotion; (3) to give practice in rapid reading; (4) to check comprehension in relation to speed; (5) to furnish leads into reading work with social studies, science, and mathematics.

Procedure

Let the students discuss the picture. Ask them to read the unit title and also the story title. Invite discussion. Have them read the introductory paragraphs and the word helps.

Following this preliminary work, have them read the story for the purpose of finding out why the boy took this dangerous trip. Urge them to read as fast as they can. Remind them to check their speed as they did in working with the selection on pages 16-17.

Follow the procedure for reading the story that is best adapted to the ability of the group as suggested in the discussion in this guide of reading the story "Chip Brown, Jumper." If you find it advisable to use a first oral reading, be sure that the second, silent reading is timed.

When the students have finished reading the story, have them compute their speed and then write answers to the comprehension questions.

Have them correct their work as you read the answers to them orally. A score of 10 should be allowed for each correct response. An answer should be counted right if it expresses the same sense as that expressed in the answers below, even if it is not phrased in the same words.

Ask the students to record their speed and comprehension scores. Suggest that each one study the relationship between his own speed and comprehension and decide whether he should try to beat his record in both, or whether he should place stronger emphasis on one or the other.

After finishing with Activity 1, proceed with the discussion questions. The students should write their answers to these on a separate piece of paper. Ask different students to give their reactions to each question. All answers that show good thinking in terms of deeper meanings and appreciations are acceptable. Some of the answers may be similar to those listed below. The answer to No. 7 will have to be the same for all.

Answers

Comprehension Questions

1. Arctic
2. He had to tend the fire.
3. The Indian would keep the fire burning.
4. One Malemute, four huskies
5. Thirteen
6. He might lose the way.
7. Pemmican
8. They slipped on the ice.
9. He made a sail.
10. In a hospital bed

Discussion Questions

1. (a) Chip's experience, because I would like to come down in a parachute.
(b) Peter's, because I'd like to drive a dog team.
2. (a) Peter, because he saved a boy's life. (b) Chip, because he not only saved his own life, but took care of the injured pilot.
3. (a) He had never traveled with a dog team over a trail. (b) He wasn't familiar with the trails in that part of the country.
4. (a) When the dogs couldn't pull the sled on the lake. (b) When he first started out and was afraid Lobo didn't know the way.

5. (a) He would have frozen to death. (b) Peter and the Indian boy both would have lost their lives.

6. (a) Because he performed so well on this trip. (b) Because he brought the dogs to the hospital after Peter left them.

7. is, the

YUKON, LAND OF THE YELLOW FEVER

(Pages 20-21)

Purposes

To provide a selection that gives students practice with the following skills in reading social studies text; (1) reading a map to make comparisons, to arrive at conclusions, and to make use of a mileage scale; (2) deciding upon causes and effects; (3) outlining; (4) using boldface headings in grasping how one event leads to another; (5) developing speed in reading social studies material.

Procedure

Have the students read the title of the selection, look at the map, and discuss it. After having them read the paragraph of instructions under "Reading the Map," expand upon the idea that one can get a great deal of information from reading a map.

If the students are able to work independently, let them proceed to write their answers to the questions in the map-reading activity. Otherwise, give them whatever supervision is necessary.

When the students are ready to work with the section under "Reading a Selection on the Yukon," have them carefully read the instructions and the word helps. Especially discuss reading this social studies article, so that they can compare these speeds with their speeds for reading a social studies selection at the end of the book.

The directions for this selection are very explicit and students of average ability should be able to carry them out independently. If, however, the particular students with whom you are working do have trouble, give them whatever help is necessary.

After students have finished and computed their speed, have them do Activity 1. Read the "causes" that they should have recorded. Allow a score of 10 for each correct response. For example, under No. 1 allow a score of 10 each for (a), (b), and (c), and so on.

In case of students who are seriously retarded in reading, you may find it necessary to have each part of the activity read orally, further explained, and then carried out under your supervision.

Invite discussion of the speed scores made while reading this social studies article as compared with the scores individuals made while reading the preceding

story. This discussion should reaffirm that slower speed is to be expected in reading a factual social studies article. Discuss also the relationship between speed and comprehension in reading social studies material.

Answers

Reading the Map

1. White River; Kluane River; Klondike River; Indian River; Stewart River; Pelly River; Teslin River
2. (a) From Dyea through the Chilkoot Pass to Lake Bennett, down the Yukon River to Dawson City
(b) From Skagway through White Pass to Lake Bennett, down the Yukon River to Dawson City
3. 430-440 miles approximately
4. 90 miles approximately

Activity 1-Causes and Effects

1. (a) Gold, along Rabbit Creek
(b) Claim staked; news spread
2. (a) Isolation slowed spread of news.
(b) Gold discovery disbelieved.
(c) Excitement slowed work.
(d) Some lacked funds to buy equipment.
3. (a) Thousands rushed for gold when news spread.
(b) Gold came to Seattle and San Francisco.
(c) Men tried to reach gold fields before winter.
4. (a) Others had claimed most of gold.

Applying What You Have Learned about Reading Social Studies Material

The teacher should conduct a discussion of applications in some such way as this:

"Much of the content in your social studies books is similar to that which you have just read. In reading such material it will be helpful to you if you do the same things that you did in working with this article.

If a map is provided, read that first, getting all the information that the map gives directly. Then reason out conclusions that are not stated by the map. This is what you did when you reasoned out how travellers could reach their destinations in the Yukon at the time of the gold rush.

Next, read all of the boldface headings. Think about the order of events as named in these headings."

"Finally, read the chapter carefully to find what caused each of the events named in the headings.

"It may be helpful to you to write the events and the cause or causes of each one, as you did in the exercise."

WONDER DRUGS (Pages 22-23)

Purposes

To provide a selection that will give practice on the use of the following skills in reading science selections: (1) identifying the problem-solving pattern of science material; (2) reading boldface headings to grasp problems; (3) using reading techniques to find statement of a problem, solution, and result; (4) developing speed in reading science material; (5) identifying the experiment pattern of writing; (6) following directions for carrying out an experiment.

Procedure

Follow the usual procedure of discussing the picture and reading the instructions. Make a strong point of the fact that the students are now to time themselves in reading a science selection.

Proceed with the reading as previously suggested.

Have students compute and record their reading time when they have finished. After checking their answers for Activity 1, ask different individuals to discuss the relationship between their speed and comprehension. Suggest that different individuals compare their rates in reading story material, social studies material, and science material.

Answers

Activity 1—Problems, Solutions, Results

This comprehension test accompanies the timed reading of the selection titled "Penicillin." Allow a score of 10 for each correct response under each problem. There will be three scores of 10 each allowed for the three correct responses called for under Problem 1, three under Problem 2, four under Problem 3. The "(1)" and "(2)" responses called for under the last question count 10 each. If all ten responses are correct, the total score will be 100.

1. a. How to control germs
b. Dr. Fleming grew and studied bacteria cultures.
c. He discovered a mold that made a chemical harmful or fatal to germs.
2. a. How to remove penicillin from mold
b. Other experimenters removed penicillin in the form of white powder.
c. They proved that the powder would kill germs.

3. a. How penicillin could be made in large amounts
- b. Drug companies grew the mold in huge tanks.
- c. (1) Large amounts of penicillin are made.
(2) Many people have recovered from illnesses.

Activity 2-Growing Penicillium Mold

Directions

1. Put a cut orange in a warm place.
2. Let it stand in the air.
3. Cover it with a glass jar.
4. Touch the mold that grows.

Answers to Questions

1. So spores of mold will alight
2. The orange
3. Mold
4. Penicillium mold
5. Spores stick to your finger or fly in the air

NUMBERS AND THE YUKON (Pages 24-25)

Purposes

(1) To give practice in reading problems with several parts; (2) to review reading the problem as a whole, and rereading to answer the question "What are you to find?"; (3) to introduce rereading to find "What facts are you given?" in problems of several parts.

Procedure

Have students read the explanations and directions and discuss these with them. They should be able to answer the questions under the problems independently. They may compute the problems if time permits. For speed development, use the procedures discussed in this guide in relation to the selection "How Far and How Fast?" on text pages 8 and 9.

Answers

Answers to Questions

1. A. (1) 1896-1899 population increase in one area
(2) 500 at beginning and 40,000 at end of 3 yrs.
- B. (1) Per cent this increase is of 1896 population
(2) 500 in 1896; 40,000 in 1899
- C. (1) Average population increase, 1896 to 1899
(2) 500 in 1896; 40,000 in 1899

Answers to Problems

1. A. 39,500 people
- B. 7900 per cent
- C. 13,167 people

Answers to Questions

2. A. (1) Percentage of men unable to get through White Pass
(2) 5,000 men started to cross White Pass; 500 reached Lake Bennett.
- B. (1) What percentage these 500 men are of the 40,000 who reached Dawson
(2) 500 crossed White Pass; 40,000 reached Dawson.
3. A. (1) How far a man would walk to move a ton of goods 6 miles.
(2) Carried 100 pounds at 1 time; a ton of goods to move 6 miles.
- B. (1) Percentage of the distance 6 miles would be
(2) 100 lbs. per trip; move 1 ton 6 miles
4. A. (1) Percentage who never saw the Yukon
(2) 100,000 started for Yukon; 40,000 arrived.
- B. (1) Percentage who did not find gold
(2) 40,000 arrived; 4,000 found gold.
- C. (1) Percentage who started and found gold
(2) 100,000 started for Yukon; 4,000 found gold.
5. A. (1) Yearly profit from his gold claim
(2) \$800; 4 years; \$1,200,000
- B. (1) Fraction of total profit which claim cost
(2) Cost \$800; \$1,200,000 taken
- C. (1) Number of times investment doubled
(2) Cost \$800; took \$1,200,000

Answers to Problems

2. A. 90 per cent of the men
B. 1.25 per cent
3. A. 234 miles (1 round trip of 6 miles each per last trip of 6 miles)
B. 2.56 per cent
4. A. 60 per cent
B. 90 per cent
C. 4 per cent
5. A. \$299,800 per year
B. 1/1500
C. 750 times

Applying What You Have Learned About Reading Problems

Have students read this section and discuss it with them.

The section devoted to application of reading skills to mathematics will not be mentioned again in the Teacher's Guide in cases in which instructions for such applications are given in the student's book. The teacher, however, should continue to emphasize desirability of applying techniques practiced in the student's reading book to the reading of problems in their mathematics texts.

REVIEWING SILENT LETTERS

(Page 26)

Purpose

To review silent consonants and silent vowels.

Procedure

The instructions in the student's book should give sufficient guidance in working with this page. Students may need to be reminded, however, that when a word contains double consonants (dd, ss, and so on), one of the double consonants is usually silent. The easy guide that they may use is to cancel the consonant that goes with the unaccented syllable. They know that words are divided into syllables between double consonants, and they know how to accent the words in the list, so they should have no difficulty applying the guide. When double consonants come at the end of a word, they may simply cancel the last one.

Answers

Cross Out Silent Consonants

1. write	10. wren	19. know	28. patch
2. surround	11. insight	20. though	29. knife
3. knit	12. high	21. honor	30. thumb
4. rack	13. barrow	22. knock	31. tunnel
5. lamb	14. latch	23. knot	32. calf
6. knee	15. pneumonia	24. crumb	33. ditch
7. island	16. sword	25. lick	34. flight
8. wrinkle	17. castle	26. hatch	35. discuss
9. yolk	18. sign	27. office	36. propeller

Cross Out Silent Vowels

1. loan	11. steam	21. complain	31. chief
2. treat	12. explain	22. repeat	32. recognize
3. compute	13. deal	23. beat	33. eager
4. people	14. reveal	24. practice	34. range
5. freedom	15. climate	25. pale	35. meal
6. thread	16. glance	26. increase	36. grove
7. statement	17. shoulder	27. coast	37. airplane
8. goal	18. praise	28. available	38. beach
9. creature	19. detail	29. contain	39. reason
10. remain	20. include	30. message	40. speech

REVIEWING TWO-LETTER BLENDS AND SPEECH SOUNDS (Page 27)

Purpose

To test student's ability to recognize common two-letter blends.

Procedure

Have the students read the directions carefully. Make sure that they understand what to do in completing the word opposite each picture.

Students who miss some of the blends should be given extra practice in finding and pronouncing words that begin with the sounds missed.

Answers

- | | | | | |
|-------------|------------|------------|---------------|------------|
| 1. clam | 5. platter | 9. glove | 14. twine | 18. scout |
| 2. steeple | 6. flame | 10. sleeve | 15. dragonfly | 19. swan |
| 3. blanket | 7. brush | 11. tray | 16. frog | 20. sponge |
| 4. prisoner | 8. crab | 12. skirt | 17. graph | 21. snail |
| | | 13. smoke | | |

REVIEWING THREE-LETTER SPEECH SOUNDS AND BLENDS (Page 28)

Purposes

To review (1) speech sounds; (2) to review three-letter blends and blends with sounds.

Procedure

Use the same procedure in working with the two sets of pictures which you used in connection with text page 27.

After the students have finished studying the words under "Using Blends and Speech Sounds," have them pronounce the words orally.

Answers

Speech Sounds

- | | | | | |
|------------|------------|-------------|----------|-----------|
| 1. ship | 2. whistle | 3. quill | 4. mink | 5. cheese |
| 6. thistle | 7. ring | 8. pheasant | 9. teeth | |

Three-Letter Blends

- | | | | | | |
|-----------|-------------|-----------|----------|----------|-----------|
| 1. spread | 2. splinter | 3. shrimp | 4. strap | 5. screw | 6. thrush |
|-----------|-------------|-----------|----------|----------|-----------|

Using Blends and Speech Sounds

- | | | | |
|---------------------|--------------------|------------------|---------------------|
| 1. <u>p</u> leasant | 4. <u>s</u> coop | 7. <u>g</u> roup | 10. <u>p</u> rogram |
| 2. <u>c</u> lasses | 5. <u>g</u> lance | 8. <u>s</u> kin | 11. <u>s</u> port |
| 3. <u>h</u> ealth | 6. <u>C</u> hinese | 9. <u>b</u> lood | 12. <u>s</u> chool |

REVIEWING VOWEL SOUNDS

(Page 29)

Purposes

(1) To review the sounds of vowels; (2) to give experience in associating the correct diacritical marks with these different vowel sounds.

Procedure

Work with the students as they read the explanations of the different sounds of the vowels. Have them give you some words to write on the chalkboard. Have them tell you how to mark these words.

They should be able to read and carry out the directions independently.

Answers

- | | | | |
|------------------------------------|------------------|-------------------|-------------|
| (A) 1. p ^l ant | 5. ärt | 9. clōse | 13. stūdent |
| 2. áct | 6. rōse | 10. schōōl | 14. stŭdy |
| 3. lâte | 7. jŏb | 11. pŭpil | 15. gŏod |
| 4. hârd | 8. shŏrt | 12. tŭrn | 16. shâre |
| (B) 1. peōple | 5. mēet | 9. whĭp | 13. smĭlē |
| 2. person (pŭr ^h sŏn) | 6. dĕŕ | 10. first (fŭrst) | 14. prĭzē |
| 3. cŏntĕst | 7. serve (sŭrvē) | 11. mĭlē | 15. skĭt |
| 4. Alberta (Ālbur ^h tā) | 8. ĕlsē | 12. shirt (shŭrt) | 16. fārmĕr |

(C) 1. bâré	8. bär	15. böök	22. thörn
2. pärt	9. mädé	16. stōné	23. fēār
3. stāgé	10. hārē	17. thōsē	24. pōt
4. ärc	11. flăt	18. hōmē	25. mülē
5. rārē	12. Clärk	19. fôr	26. būrn
6. färm	13. shoōt	20. gōōd	27. lūck
7. flāsh	14. hörn	21. hüntēr	28. fūmē

REVIEWING WORD PARTS AND THEIR MEANINGS

(Page 30)

Purposes

To give experience in: (1) analyzing compound words; (2) recognizing stem words; (3) reviewing prefixes; (4) changing meanings with prefixes; (5) recognizing suffixes; (6) changing meanings with suffixes.

Procedure

At this point it is advisable to remind students of the techniques which they have been taught to use in preceding grades for the purpose of working out the pronunciation of new words: (1) phonics, (2) context clues, (3) analysis of word structure (breaking a word into parts - root prefix, suffix, syllables), and (4) dictionary skills.

They have had considerable practice in reviewing phonics on preceding pages in this book, and they have had an opportunity to use context clues in supplying words in context while "Working With Science Words" on page 15. Now they are about to review word structure techniques in which they analyze words into their parts.

In introducing page 30 discuss the value of the technique of dividing words into their parts as a word recognition aid. When the students are ready to work with their books, the instructions in the book should be sufficient in themselves. If difficulty does arise at any point, however, supplement with any additional explanations that may be necessary.

As an additional assist in working out unrecognized words independently, it is advisable to devote extra time to a discussion of vocabulary aids provided in textbooks.

Emphasize the value of going through textual vocabulary aids in advance of reading a selection or chapter, so that vocabulary difficulties will be out of the way from the first and reading can proceed without interruption. It is particularly important that students with reading problems do this. All too often such students get bogged down by new words and lose the train of thought. No other single factor will help them get over their reading difficulties so much as dealing with the problem of vocabulary.

If parts of diagrams that accompany reading material are labeled, the students will find it helpful to try to picture each part and its label. When new

terms, such as names of gases or chemicals, are presented in tables, the students will find it helpful to study each name in terms of the additional information that the table gives about it. By studying likenesses and differences, the students will find it easier to distinguish the terms later on. Diagrams, tables, and maps should be given a preliminary study before the students read the accompanying text.

You may use one of the students' regular texts to show them the location and value of the glossary. The idea of using an index to find definitions may be new to some students. If necessary, use one of their regular science, history, or mathematics texts to show them that the first reference after an entry usually gives the page on which the term is introduced and defined. Since some indexes are better than others, you will probably find it advisable to prepare this demonstration before class begins.

When confronted with an extensive new vocabulary, students will find it helpful to make glossaries, tables, and diagrams of their own.

Answers

Finding Parts in Compound Words

1. basket/ball: a game played by tossing a ball into a basket
2. news/paper: printed with news

Finding Root Words

- | | | | |
|----------------------|-------------------------|--------------------------|-----------------------|
| 1. <u>addition</u> | 5. <u>consideration</u> | 9. <u>classification</u> | 13. <u>especially</u> |
| 2. <u>activities</u> | 6. <u>successful</u> | 10. <u>revisited</u> | 14. <u>excellent</u> |
| 3. <u>formation</u> | 7. <u>generally</u> | 11. <u>unthinking</u> | 15. <u>personal</u> |
| 4. <u>harmful</u> | 8. <u>comforting</u> | 12. <u>greatest</u> | 16. <u>useful</u> |

Working with Prefixes

- | | |
|----------------|------------------------|
| 1. reread: | to read again |
| 2. remove: | to move again |
| 3. disapprove: | not to approve |
| 4. disallow: | not to allow or permit |

Working with Suffixes

- | | |
|-------------------|----------------------------------|
| 1. digestion: | act of digesting |
| 2. discussion: | act of discussing |
| 3. sportsmanship: | the ability to be a good sport |
| 4. citizenship: | the ability to be a good citizen |

WORKING WITH MATHEMATICS

WORDS AND PHRASES

(Page 31)

Purpose

To familiarize students with the pronunciations and specialized meanings of words which occur with high frequency in mathematics texts.

Procedure

Have the students read the introductory paragraph and the directions at the head of the left-hand column. Then they may work through this column independently.

After they have finished studying the left-hand column, have them pronounce the words orally.

Next, they should read the directions at the head of the right-hand column and carry them out.

Answers

- | | | |
|----------------|---------------------|-----------------|
| 1. endorse | 6. broker | 10. mathematics |
| 2. investments | commission | 11. kilogram |
| 3. disk | 7. knot | 12. invoice |
| 4. operating | 8. abacus | 13. dimensions |
| 5. centimeter | 9. installment plan | 14. calculating |

Procedures for Teaching

UNIT THREE

GOOD SPORTSMANSHIP

(Pages 32-45)

Selection of Topic

This unit deals with good sportsmanship. The subject was chosen because of its interest to high school students, because different phases of this subject are commonly taught at the high school level, and because it offers possibilities of giving experiences in reading related content in different subject fields.

WIN THE GAME

(Pages 32-33)

Purposes

(1) To provide a story of high interest; (2) to develop appreciation through sensing deeper meanings, trying to relive vicariously the experience of characters, deciding upon the action the reader would have taken if he had been in the character's place, deciding upon the emotion the reader would have felt if he had been in the character's place, discussing outcome if events had been different, discussing qualities of a character; (3) to give practice in rapid reading; (4) to check comprehension in relation to speed; (5) to furnish leads to a social studies, science, and mathematics selection.

Procedure

Follow the same procedure as previously suggested for reading stories in Book II.

Answers

Comprehension Questions

1. Chip Art Billy Peter Lew Ted
- "Win the Game" "Lobo, The Malemute" "Chip Brown, Jumper"
- 

2. Kenmore
3. The Times-Citizen newspaper
4. He practiced, ate balanced meals.
5. Billy
6. It missed, but Billy got it.
7. Ted
8. If he made the basket, he would win the game and cup.
9. Billy
10. Winning the game

Discussion Questions

The answers below will be given frequently. Only one answer can be given for Question 1.

1. The championship of the year would be determined by this game.

2. (a) Yes. He added another score for his team. (b) No. It was a matter of luck. Since the ball hit the rim, it was just as likely to have fallen outside instead of inside the basket.

3. (a) Billy would probably have thrown the ball through the basket and won the game just the same. (b) Reedville might have won. Billy might have failed in getting the ball through the basket, and Ted wouldn't have had his later chance to throw the ball to Billy.

4. (a) Yes. It was the right thing to do. (b) I don't know. I'm afraid I couldn't have made such a big sacrifice.

5. (a) He had tried to make himself physically fit to win the game. (b) He was skillful. (c) He was willing to give up his own personal honors in the interest of winning the championship for his school.

Additional Discussion Questions

1. Why do you think Reedville took time out after Ted's first shot?

2. Did Billy seem more selfish or generous than Ted in what he said after Art Clark told the two boys they were tied for the cup? Why?

3. How would the story have ended if Ted had thrown the ball and failed? Do you think Ted believed Billy had a better chance of making the basket in the last half minute than he did?

4. How do you think students from Reedville school felt? What might they do to show that they were good sports?

Answers

1. (a) Reedville wanted to plan for the last important play.

2. Billy seemed more generous because he was willing to give up high scoring honors and the cup if his team could win the game.

3. (a) Reedville would have won the championship, but Ted and Billy would have shared the cup. (b) Yes

4. (a) Disappointed; (b) Congratulate the Kenmore players; shake hands with Billy and congratulate him; shake hands with Ted and tell him he was a good sport

WHAT IS A GOOD SPORT?

(Pages 34-35)

Purposes

To provide a social studies selection that offers opportunities for practice on the following skills: (1) understanding rules of good citizenship; (2) applying citizenship information to life situations; (3) making use of boldface headings in

grasping rules; (4) rapid reading of social studies material; (5) checking comprehension in relation to speed.

Procedure

Discuss the meaning of the title. Have students tell what they think a good sport is. Then read to find out what the selection says.

Have them read the directions and pronounce the new words.

Supervise students to make sure that they preview the boldface headings before reading the selection. Be sure they record their beginning and ending times and compute their rate for reading this social studies article.

Answers

Students make nine responses in Activity 1. A score of 10 may be allowed for each response. An additional score of 10 may be given for a good statement of a personal example. The personal example may be written in response to the some such instruction as this: "Think of one example in your own life which represents one of the rules for good sportsmanship. Write this example in one paragraph. Be ready to give it in a discussion with your teacher and classmates."

Activity 1—Applying the Rules of Good Sportsmanship

- A. 1. Rule? Be a good loser.
- 2. Applied? Yes
- 3. Was the defeated man a good sport? Yes
- B. 1. Rule? Follow the rules of the game.
- 2. Applied? No
- 3. Was Howard a good sport? No
- C. 1. Rule? Work with the team.
- 2. Applied? Yes
- 3. Was Paul a good sport? Yes
- D. (Personal example)

Additional Sportsmanship Examples

If you wish, you may read these additional examples to the students, and let them make oral or written responses.

1. A baseball player who had made a wonderful record for his team failed to make any hits in the last game of the season. As a result he was very unhappy and became sullen and cross. He said that he was going to leave the team and never play baseball again.

Which rule? _____

Was it applied? _____

Was the baseball player a good sport? _____

2. Helen's dog followed her to school one morning. This was the morning of the spelling match. Helen was an excellent speller, and she had been looking forward to taking part in the spelling event. There was to be half an hour for reviewing spelling words the first thing in the morning. At 9:30 the event was to take place. Helen didn't have time to take her dog home, so she asked if he might lie quietly by her chair. The teacher said that he might. The dog didn't lie quietly by Helen's chair, however. He kept running around the room and bothering the students. No one could study. So Helen put him outside and shut the door. He began barking loudly and disturbed everyone again. "May I be excused to take him home?" asked Helen. "I'll miss the spelling match, but none of the others can study when he's around. They won't be able to spell well with a dog barking at the door every few minutes." Helen was given permission to take the dog home.

Which rule? _____

Was it applied? _____

Was Helen a good sport? _____

Answers

1. Rule? Be a good loser.

Applied? No

Was the baseball player a good sport? No

2. Rule? Show consideration for others.

Applied? Yes

Was Helen a good sport? Yes

Applying What You Have Learned About Reading in Your Citizenship Books

It would be advisable to discuss the points below with your students.

"In citizenship books you often read suggestions for being a good sport and a good member of your school group and of your family group. You read about being a good citizen in your town and in your country and about doing other things that will help you to be a better person.

"When you read such material, don't read it just as you would a story. Think about each suggestion that is given and try to apply it to some experience you have had. Remember what the suggestion is, and make use of it in your own life. If you do these things, reading this type of material will be very useful to you and will help you to be a happier person all through life."

HOW FOODS HELP TO WIN THE GAME

(Pages 36-37)

Purposes

To provide a selection in science that gives practice on the following skills:
(1) previewing a science article with the use of boldface and italicized headings;
(2) identifying and using special skills needed in reading the classification pattern of science writing; (3) reading to answer specific questions; (4) classifying science information.

Procedure

Have students read the directions and study the word helps as usual. Work with them as they preview the boldface and italicized headings to find the different classes and subclasses of vitamins. Have them tell what the classes and subclasses are.

After they have finished reading the selection and doing the Activity, discuss with them the possibility of applying to their work with their science texts the reading techniques they have been using.

There are 24 blanks for the students to fill. You may value each at 4 points.

Answers

Activity 1—Classifying Vitamins

<u>Name</u>	<u>Uses (One or two of these)</u>	<u>Where Found (One or two)</u>
Vitamin A	Prevents colds Keeps eyes healthy Aids growth	Milk, butter, cheese, enriched oleomargarine, "organ" meats, egg yolks, green and yellow fruits and vegetables; fish liver oils
Vitamin B ₁ (Thiamin)	Prevents beriberi Helps appetite and digestion Helps body to use carbohydrates	Whole grain rice, meat, vegetables
Vitamin B ₂ (Riboflavin)	Helps us grow Keeps skin and muscles healthy Changes food to energy	Meats, dairy products, green vegetables
Vitamin B ₆ (Niacin)	Prevents pellagra Aids growth Keeps the stomach and intestines healthy	Milk, butter, cheese, meat

<u>Name</u>	<u>Uses (One or two of these)</u>	<u>Where Found (One or two)</u>
Vitamin B ₁₂	Builds red blood cells Improves appetite, growth	Milk, butter, meat, vegetables, fruit
Vitamin C (Ascorbic acid)	Helps make good teeth and gums Prevents scurvy	Oranges, lemons, grapefruits, limes, tomatoes, strawberries, cabbage
Vitamin D	Prevents rickets Builds bones and teeth	Sunshine, fish oils, egg yolks, irradiated milk
Vitamin K	Helps blood clot	Leafy green vegetables, egg yolk, milk

POINTS AND POUNDS

(Pages 38-39)

Purposes

(1) To review the first two steps that students have previously practiced in reading problems; (2) to provide practice on a third step—rereading to decide what process to use; (3) to give practice in charting necessary information in solving a problem.

Procedure

Have students read the instructions. Ask a few students to tell what they are going to do and in what order they will do it.

When they have finished, discuss with them the carry-over suggestion under the heading "Applying What You Have Learned About Reading Arithmetic Problems."

Answers

Answers to Questions

<u>1. To Find</u>	<u>Facts</u>	<u>Process</u>
Per cent of total scoring done by Ted	Total, 480; Ted's score, 88	$\div$
<u>2. To Find</u>	<u>Facts</u>	<u>Process</u>
Points Ted scored last year	88 points; 74%	$\times$
<u>3. To Find</u>	<u>Facts</u>	<u>Process</u>
Per cent of total Billy made	Total, 480; Billy's score, 92	$\div$

Answers to Problems

18.33%

65 points

19.1%

Answers to QuestionsAnswers to Problems

- | | | | |
|-----------------------------|----------------------|----------------|-------|
| 4. <u>To Find</u> | <u>Facts</u> | <u>Process</u> | |
| Per cent of total Jack made | Total, 480; Jack, 68 | $\div$ | 14.2% |
-
- | | | | |
|--|----------------------------------|----------------|------------|
| 5. <u>To Find</u> | <u>Facts</u> | <u>Process</u> | |
| Points contributed by Tom, Harold, and Bob | Tom, 52; Harold, 42; and Bob, 32 | + | 126 points |
-
- | | | | |
|--------------------------------|----------------------|------------------|-----------------|
| 6. <u>To Find</u> | <u>Facts</u> | <u>Processes</u> | |
| Points scored last year by Lew | 106 points; 25% less | $\times$
- | 79 or 80 points |
-
- | | | | |
|---|---------------|----------------|----------|
| 7. <u>To Find</u> | <u>Facts</u> | <u>Process</u> | |
| Number of acts of good sportsmanship observed by Jane | 190 acts; 65% | $\times$ | 124 acts |
-
- | | | | |
|---|------------------|----------------|-------------------|
| 8. <u>To Find</u> | <u>Facts</u> | <u>Process</u> | |
| The number of pounds (to the nearest tenth) of beef eaten by a person in Canada in a year | 142.7 lbs. 45.2% | $\times$ | 64.5 lbs. of beef |
-
- | | | | |
|--|---|--------------------|------|
| 9. <u>To Find</u> | <u>Facts</u> | <u>Processes</u> | |
| The per cent of butter that is protein | 9.6 oz. protein per 100 lbs. butter; 1 lb. = 16 oz. | $\times$
$\div$ | 0.6% |
-
- | | | | |
|--|-----------------------------|----------------------------------|---------------|
| 10. <u>To Find</u> | <u>Facts</u> | <u>Processes</u> | |
| The number of calories needed for girls 13 to 15 years old | 3200 calories; 12 1/2% less | $\times$ (or $\div$, by 8)
- | 2800 calories |

DIVIDING WORDS INTO SYLLABLES

(Pages 40-41)

Purposes

To give experience in using the following skills which are necessary in doing correct syllabication: (1) recognizing that a syllabic unit is one that contains a sounded vowel; (2) dividing compound words between the words; (3) dividing double-consonant words between the two consonants; (4) dividing prefixed words between prefix and stem; (5) dividing suffixed words between suffix and stem.

Procedure

The instructions in the student's book should be adequate in explaining procedures. Perhaps, however, you will wish to explain that when a student pronounces a double-consonant word, the consonant with the accented syllable is sounded while the consonant with the unaccented syllable is silent. Double c is an exception when the first c is pronounced as k, the second c as s, as in succeed.

Answers

Finding Sounded Vowels

	<u>How Many Sounded Vowels ?</u>	<u>How Many Syllables ?</u>
1. main	1	1
2. twins	1	1
3. branch	1	1
4. space	1	1
5. danger	2	2
6. total	2	2
7. broken	2	2
8. entire	2	2
9. Sandy	2	2
10. detail	2	2
11. prison	2	2
12. explain	2	2
13. corner	2	2
14. ideal	3	3
15. convince	2	2
16. important	3	3
17. control	2	2

	<u>How Many Sounded Vowels?</u>	<u>How Many Syllables?</u>
18. consonant	3	3
19. telephone	3	3
20. wisdom	2	2
21. Macdonald	3	3
22. complete	2	2
23. historical	4	4
24. continental	4	4
25. children	2	2
26. independence	4	4
27. Frontenac	3	3
28. imaginary	5	5
29. tannery	3	3
30. newspaper	3	3
31. committee	3	3
32. sportsmanship	3	3
33. vitamin	3	3
34. carbohydrate	4	4
35. information	4	4
36. thunderhead	3	3
37. centipede	3	3
38. photograph	3	3
39. armadillo	4	4
40. instrument	3	3

Guide 1: Dividing Between Words Forming Compounds

bake/shop	watch/man	half/way	up/set
horse/back	earth/quake	north/west	with/in
air/port	with/drawn	run/way	snow/shoes
North/land	class/mate	sea/coast	text/book

Guide 2: Dividing Between Double Consonants

mes/ s age	ap/ p ear	car/ r y	coq/ q ue
get/ t ing	cur/ r ent	a c count	sup/ pport
dif/ f er	sad/ d est	com/ m ent	op/ ppose
hap/ p en	An/ n a	sup/ ppose	pol/ l en
ap/ p ly	at/ t ack	com/ m and	ses/ s ion
suf/ fer	win/ n ing	ap/ prove	sul/ len

Guide 3: Dividing Between Separately Sounded Consonants

cen/ter	or/der	cer/tain	fan/cy
per/haps	ab/sorb	Nep/tune	con/dense
cir/cus	tur/bine	sys/tem	num/ber
com/pare	fic/tion	dis/tance	ob/serve

Guide 4: Dividing Before Single Consonants

di/vide	to/tal	de/cide	cho/rus
pro/ceed	po/lar	lo/cate	hu/man
cli/mate	ta/per	ca/nal	le/gal
so/lar	Ve/nus	pro/duce	Plu/to
de/sign	sea/son	i/dol	va/por

FINDING THE MAIN IDEA IN PARAGRAPHS

(Page 42)

Purposes

To give experience: (1) in finding the main idea in a paragraph; (2) in selecting the few words within the main idea sentence that give the kernel of the paragraph content.

Procedure

Follow through the instructions and the two examples with the students. Supplement with any explanations necessary in helping them to understand that they may at times find the gist of the main idea in a few words within a sentence.

Answers

1. Clouds put interest into the sky.

2. People have been interested in the beauty of clouds since earliest times.
3. When you are inside a cloud, it looks like fog.
4. Clouds are higher than fog and more dense.
5. Artists seldom have fully realized the beauty in clouds.
6. There has been much interest in photographing clouds.

MORE ABOUT FINDING THE MAIN IDEA IN PARAGRAPHS (Page 43)

Purpose

To give the student experience in locating the main idea regardless of its position in a paragraph.

Procedure

Work with the students as they read the explanation and examples. Discuss the examples with them. Explain that in their work on this page they will still find some main ideas in the first sentence, but that this will not be true of the most of the paragraphs.

Remind them to underline only important parts of a sentence, unless every word is needed in giving the main idea.

Answers

1. . . . not many people have seen this creature.
2. The mole . . . is widely distributed in different parts of the world.
3. A mole digs wherever his fancy leads him.
4. The swiftness with which moles work is almost unbelievable.
5. . . . his coat protects him in his underground work.
6. The mole is a great eater.
7. His home is very complex.
8. Once a year . . . the mother mole has a litter of from two to five babies.

READING FOR DETAILS

(Page 44)

Purposes

To give practice: (1) in finding the main idea in a paragraph; (2) in grasping details as related to the main idea; (3) in organizing details under main ideas; (4) in outlining paragraphs.

Procedure

Grasping details is a difficult skill for many high school students to achieve. After working through the instructions and the example on page 44, it may be necessary for you to give some guidance in outlining the second paragraph on a separate piece of paper. Make sure that students make outline forms for their paragraphs similar to the one given in their book for use in outlining the first paragraph.

Answers

Paragraph No. 1

Main idea: "Lead" in pencils is made from graphite and clay.

- Details: 1. Graphite comes from Mexico, Ceylon.
2. It is ground into a fine powder.
 3. Graphite and clay are mixed into a dough.
 4. The dough is pressed through small holes.

Paragraph No. 2

Main idea: The graphite and clay dough comes out like a long string.

- Details: 1. It coils up like a wire.
2. It is straightened out and cut into strips.
 3. The "lead" is heated to make it tough.
 4. It is heated to 2000 degrees F.
 5. The heat makes "lead" hard.

Paragraph No. 3

Main idea: Your pencil is a wooden sandwich.

- Details: 1. A good pencil is made of cedar.
2. Only cedar is tough enough and free from warp and knots.

3. Incense cedar is often used for five-cent pencils.
4. Some companies have their own timber tracts and mills.

Paragraph No. 4

Main idea: At the mill the wood is sawed into pieces seven and a quarter inches long.

Details: 1. These are called "slats."

2. They are seasoned for six months, then shipped to a factory.

Paragraph No. 5

Main idea: Grooves are cut in these wooden slats.

Details: 1. The groove is half a circle, half as big around as your pencil lead.

2. A man puts the "leads" in these grooves.
3. Another piece of wood is grooved just like the first one.
4. It is covered with glue.
5. It is fitted over the first part with the "lead."
6. The two pieces are put in a press to hold them together.

Paragraph No. 6

Main idea: The next step is to cut out the pencils.

Details: 1. A machine does this.

2. Knives turn around 10,000 times in one minute.
3. The pencils are sandpapered.
4. They are painted and varnished by machinery.
5. Your pencil may have as many as 15 coats of paint.

WORKING WITH SOCIAL STUDIES WORDS (Page 45)

Purpose

To familiarize students with the pronunciations and meanings of special words that they will commonly meet in their social studies books.

Procedure

Follow the usual procedure.

Answers

- | | | |
|------------------|----------------|----------------|
| 1. Confederation | 5. adjourned | 10. civilians |
| 2. campaign | 6. compromise | 11. depression |
| 3. annexed | 7. blockade | 12. delegate |
| 4. amendment | 8. authority | 13. commission |
| | 9. disarmament | |

Procedures for Teaching

UNIT FOUR

IN THE DAYS OF CONFEDERATION (Pages 46-59)

Selection of Topic

The subject of Confederation was chosen as the topic for this unit because selections of interest to high school students could be developed in connection with this topic, and because it is a subject commonly treated in social studies books at the high school level.

A MESSAGE FOR CHARLOTTETOWN (Pages 46-47)

Purposes

(1) To provide an interesting narrative that students will enjoy reading; (2) to develop appreciation by providing opportunities to sense deeper meanings, to draw inferences, to relive experiences of characters, to sense characters' emotions, to decide upon the emotion the reader would have felt if he had been the character, to discuss how the story would have ended if events had been different, to discuss word choice, to visualize word pictures; (3) to give practice in timed reading of a narrative; (4) to check comprehension in relation to speed.

Procedure

Follow the usual procedure. Urge students to force their speed and try to beat the record they made while reading "Win the Game."

Answers

Comprehension Questions

1. In Charlottetown, Prince Edward Island
2. He would miss the parade.
3. To discuss union of the Maritime provinces
4. A circus had come to Charlottetown.
5. Eight members of the cabinet of Upper Canada were arriving in Charlottetown.
6. He had never before had sole responsibility for receiving Morse messages.
7. He was so intent on getting each letter of the message.
8. "Heather Belle" ----- Nova Scotia
"Prince of Wales" ----- New Brunswick
"Queen Victoria" ----- Upper Canada

Discussion Questions

Several different answers may be given to all questions. Some of the answers may be similar to the ones below.

1. (a) The date on the calendar. (b) People had driven in buggies.
(c) John A. Macdonald was living. (d) The delegates were meeting to discuss the union of the provinces.

2. (a) Direct statement: "People had driven in their buggies from all parts of the island". (b) The delegates all arrived by boat. (c) The circus had also come by boat.

3. (a) At this time there were few circuses. (b) Circuses could only travel very slowly because of the limited means of transport in the nineteenth century. (c) Charlottetown is on an island and could only be reached by sea; and so on.

4. (a) To show how bored Jim was with everyday routine, when exciting happenings were taking place outside. (b) To rouse interest in Jim and make the reader wonder what is going to happen to him

5. Any of the following traits of Mr. Watson might be included. (a) interested in politics (b) liked to argue (c) was kind to Jim (d) realized the importance of the delegates' meeting (e) had a sense of humour ("the spectacle of the circus parade will be followed by that " etc)

6. He was forecasting the provinces would unite and form one nation as a result of the meeting.

7. (a) The majority of the people would be more interested in the circus than in the delegates. (b) Every hotel and boarding house was full, so that they would have difficulty in finding accommodation.

8. The meeting of the delegates was of historical significance because the delegates made proposals which finally led to the uniting of the provinces into the Confederation of Canada.

WHY DID THE PROVINCES UNITE?

(Pages 48-49)

Purposes

To provide a selection that offers practice on the following skills in reading social studies material: (1) finding the main idea; (2) finding the details related to a main idea; (3) recalling main ideas; (4) discriminating between fact and opinion.

Procedure

Follow through the procedure as suggested in the student's book. Give any necessary assistance.

Discuss the answers that the students write for each activity, and see if they can arrive at unanimous decisions.

See if some of the students can restate the main ideas without looking at their books.

Answers

Activity 1-Listing Main Ideas and Details

1. The idea of the union of the provinces of British North America was not new or original in the eighteen sixties.

2. Though this railway was not built until after Confederation, it made possible the union of provinces thousands of miles apart.

3. Politicians in the eastern provinces then became anxious that they might lose the western lands to the United States.

4. They realized that if they were united under one government they would be better able to defend themselves against possible invaders.

5. As a result, the colonies hoped to promote inter-provincial trade to make up for the loss of the American market.

6. The two major parties at that time, the Conservatives and the Reformers, were so evenly balanced that neither side maintained a majority in parliament long enough to look after the business of the country.

7. It was fortunate for Canada that a bevy of great statesmen worked together to achieve confederation.

Paragraph No. 1

Main idea: The idea of union of the provinces of British North America was not new or original in the eighteen sixties.

Details: 1. Several statesmen had suggested this earlier.

2. It was thought too impractical and expensive.
3. Provinces feared they might lose independence and character.
4. By 1864 union seemed inevitable.

Paragraph No. 2

Main idea: Though this railway was not built until after Confederation, it made possible the union of provinces thousands of miles apart.

Details: 1. Railways were being built rapidly.

2. Railways brought prosperity to nearby towns and villages.

3. A railway from the Atlantic to the Pacific was no longer impossible.

Paragraph No. 3

Main idea: Politicians in the eastern provinces then became anxious that they might lose the western lands to the United States.

Details: 1. The settlement of Oregon ruined the Hudson's Bay Company's fur trade along the Columbia river.

2. The boundary between British Columbia and the U.S.A. was fixed at the forty-ninth parallel in 1846.

3. Some of the Oregon pioneers were then in Canada.

4. Many prospectors from the U.S.A. flocked into British Columbia in 1857 during the Cariboo gold rush.

Activity 2-Finding Statements of Opinion

Any six of these paraphrased:

1. To many people it appeared too impractical and expensive to undertake.
2. Some provinces feared loss of independence and character.
3. Some believed building more railways would bring prosperity and union.
4. Eastern politicians feared loss of the west to the United States.
5. Northern states suspected Britain favored the south. Hostility grew.
6. More inter-provincial trade would replace American market loss.
7. Lower Canada feared the loss of their language and religion.
8. Many thought that confederation would solve this political problem.

THE WEST IS NOW SPANNED
WITH TELEGRAPH WIRES
(Pages 50-51)

Purposes

This selection provides opportunity for practice in the following skills needed in working with science material: (1) identifying the explanation-of-a process pattern and using special techniques in reading this pattern; (2) interpreting sequential steps in a process.

Procedure

Discuss with the students the way in which they should study a science article describing a process, and make sure that they follow the instructions in their book.

Answers

Activity 1-Listing Steps in a Process

A. Sending a message from Station A.

1. Operator pushes down the key.
2. Electric current flows from the battery to the coil.
3. The coil becomes a magnet.
4. The coil attracts the end of the metal bar.
5. The end of the bar drops down toward the coil.
6. As it hits the coil there is a loud click.
7. The electric current passes along the wire to Station B.

B. What Happens at Station B?

1. The coil at B now becomes a magnet.
2. This coil pulls down its pivotal bar.
3. This bar makes a click just like the one at Station A.
4. Operator at Station A lets up his key.
5. The electric current stops.
6. Coils A and B cease to be magnets.
7. The bars above the coils tilt back to their original positions with another "click."

Activity 2-Using the Dot and Dash System

1. (The code for n is - . .) Press, hold, lift. Press-lift.
2. (The code for d is - . . .) Press, hold, lift. Press-lift. Press-lift.
3. (The code for g is - - . .) Press, hold, lift. Press, hold, lift. Press lift.

Activity 3-Translating

1. I can read well.
2. I is dot-dot. O is dot, pause, dot.
3. . . , , . - , . . . - , . , - . . - , - . . . , . . , . . ,
- . . , . . .

MESSAGES AND JOURNEYS (Pages 52-53)

oses

(1) To give practice in reading problems to find: What are you asked to? What facts are given? What processes should you use? What is your estimate of the answer? (2) To chart this information for each of several problems without the guidance offered by questions.

cedure

Have the students read the instructions. Answer any questions that they have, then let them work independently.

Discuss carry-over work suggested in the last paragraphs, page 53.

vers

<u>To Find</u>	<u>Facts</u>	<u>Process</u>	<u>Estimate</u>	<u>Answers to Problems</u>
The walking time in days between Ottawa and Toronto	250 miles 32 miles a day	$\times$ $\div$	8 days	7 $\frac{13}{16}$ days

<u>To Find</u>	<u>Facts</u>	<u>Process</u>	<u>Estimate</u>	
The population of Upper Canada in 1867	3,300,000 people 50% lived in Upper Canada	$\times$ $\div$	1,700,000 people	1,650,000 people

				<u>Answers</u>
3.	<u>To Find</u>	<u>Facts</u>	<u>Process</u>	<u>Problem</u>
	The number of French-speaking Canadians	3,689,300 people 31% spoke French	$\times$ $\div$	1,200,000 people 1,143,680 people
4.	<u>To Find</u>	<u>Facts</u>	<u>Process</u>	<u>Estimate</u>
	The area of the farm in acres	1,306,800 sq. ft. 1 acre = 43,560 sq. ft.	$\div$	30 acres 30 acres
5.	<u>To Find</u>	<u>Facts</u>	<u>Process</u>	<u>Estimate</u>
	The time taken to ride to Toronto	250 mile trip 80 miles a day	$\div$	3 days 3 1/8 days
6.	<u>To Find</u>	<u>Facts</u>	<u>Process</u>	<u>Estimate</u>
	The time taken to drive 250 miles	250 miles 45 m.p.h.	$\div$	6 hours 5 5/9 hours
7.	<u>To Find</u>	<u>Facts</u>	<u>Process</u>	<u>Estimate</u>
	The total number of telephone calls made	8,513,400,000 local calls 194,186,000 long distance calls	+	8,700,000,000 calls 8,707,586,000 calls
8.	<u>To Find</u>	<u>Facts</u>	<u>Process</u>	<u>Estimate</u>
	The number of telephones per 100 of the population	17,048,000 people 5,118,290 telephones	$\div$	30 telephones 30 telephones
9.	<u>To Find</u>	<u>Facts</u>	<u>Process</u>	<u>Estimate</u>
	How many more phones in use now than in 1911	5,700,000 telephones now 303,000 in 1911	-	5,400,000 more phones 5,397,000 more phones

DIVIDING WORDS INTO SYLLABLES

(Pages 54-55)

Purposes

(1) To give special practice on two principles of syllabication; (2) to develop awareness of the fact that these principles do not apply in the case of blends and speech sounds; (3) to review and practice using all guides learned so far in dividing words into syllables.

Procedure

The procedures suggested in the student's book should be sufficient. If slower pupils have difficulty in understanding what to do, supplement with your own explanations.

Answers

Guide 5: Considering Consonant Blends and Speech

Sounds As Single Consonants

de/ <u>s</u> cribe	com/ <u>p</u> lete	con/ <u>c</u> lude	ei/ <u>t</u> her
au/ <u>t</u> hor	ex/ <u>t</u> reme	ex/ <u>p</u> ress	ex/ <u>p</u> lain
far/ <u>t</u> her	pro/ <u>g</u> ress	in/ <u>c</u> rease	re/ <u>f</u> lect
im/ <u>p</u> rove	de/ <u>g</u> ree	coun/ <u>t</u> ry	en/ <u>c</u> hain

Exceptions

bun/ <u>d</u> le	trou/ <u>b</u> le	peo/ <u>p</u> le	man/ <u>g</u> le
------------------	-------------------	------------------	------------------

Guide 6: Dividing Between Prefixes, Root Words, and Suffixes

un/less	re/read	em/bed	im/port
ex/change	en/large	re/call	re/act
un/fair	pre/view	sub/merge	re/view
in/quire	dis/ease	in/side	con/text
leaf/let	block/ade	safe/ly	wide/ness
state/ment	threat/en	help/ful	buzz/ing
free/dom	root/er	ac/tor	gray/ish
harm/ful	head/ings	sail/ing	collec/tion

Applying All You Have Learned About Dividing Words into Syllables

<u>4</u> di/vide	<u>2</u> cor/rect	<u>5,3</u> im/press	<u>5,4</u> ma/chine
<u>3</u> prac/tice	<u>6</u> troop/er	<u>2</u> af/fair	<u>5,4</u> pro/gram
<u>2</u> fos/sil	<u>2</u> cor/ral	<u>3</u> ab/rupt	<u>6,4</u> be/neath
<u>3</u> ad/mire	<u>1,6,5,3</u> worth/less	<u>6</u> quick/est	<u>3,6</u> ex/tend
<u>2</u> mam/mal	<u>3</u> rep/tile	<u>7,2</u> sad/dle	<u>4,6*</u> bru/tal
<u>3</u> com/pute	<u>4</u> pre/tend	<u>6,5,4</u> re/pace	<u>6,5,3</u> ex/press
<u>6,3</u> year/ly	<u>1,6,3</u> in/land	<u>1,6</u> luck/less	<u>2</u> mes/sage
<u>2</u> an/noy	<u>6,2,5,3</u> trans/ship	<u>2</u> gal/lant	<u>5,3,6*</u> for/tress
<u>2</u> lob/by	<u>6,3</u> main/ly	<u>4</u> vi/tal	<u>4</u> de/feat
<u>3</u> Wat/son	<u>2</u> scar/ning	<u>1,5,3</u> mean/while	<u>6,4</u> re/turn
<u>2</u> bug/gy	<u>6,4</u> re/read	<u>6,5,4</u> de/press	<u>4</u> vi/rus
<u>3</u> sym/bol	<u>1</u> rail/road	<u>4</u> ma/ture	<u>1,6,3</u> out/line
<u>4,6*</u> no/tice	<u>2</u> con/nect	<u>7,5,4</u> ri/fle	<u>1,5,3</u> sand/stone
<u>3</u> fin/ger	<u>3,6*</u> sig/nal	<u>2</u> ar/range	<u>3</u> pas/ture
<u>3</u> mag/net	<u>6</u> earth/en	<u>1</u> view/point	<u>6</u> care/ful
<u>2</u> cur/rent	<u>2</u> fis/sure	<u>5,3</u> com/plex	<u>7,5,3</u> can/dle
<u>4</u> mo/ment	<u>2</u> pat/tern	<u>6</u> larg/est	<u>6,3</u> un/load
<u>1,6,5,3</u> out/break	<u>6</u> deep/er	<u>2</u> ef/fect	<u>6</u> part/ly
<u>4</u> vo/cal	<u>3</u> chap/ter	<u>1</u> lime/stone	<u>1,6,3</u> out/come
<u>5,3</u> con/trol	<u>2</u> pres/sure	<u>6</u> skill/ful	<u>2</u> sur/round

*Exception to Guide 13

WORKING WITH MATHEMATICS WORDS AND PHRASES (Page 56)

pose

To acquaint students with the pronunciations and special meanings of technical words they commonly encounter in their mathematics texts.

cedure

Use the procedure previously suggested for similar pages.

swers

damages	6. mills	11. redemption value
micrometer	7. consumer	12. insurance
decimeters	8. currency	13. policy
centimeters	9. bonds	14. annual premium
millimeters	10. maturity value	

WORKING WITH SCIENCE WORDS (Page 57)

pose

To familiarize students with the pronunciations and meanings of some of technical words that occur most frequently in high school textbooks in science.

cedure

Follow the usual procedure for vocabulary pages.

swers

seismograph	6. turbines	11. immunization
insecticide	7. paramecium	12. uranium
parasites	8. planetarium	13. rotation
metamorphic	9. heredity	14. typhoid
pollination	10. Palomar	15. tuberculosis

OUTLINING PARAGRAPHS (Page 58)

Purposes

To give practice in: (1) finding main ideas; (2) finding details; (3) outlining paragraph showing main ideas and details.

Procedure

After students have read the instructions, have them read the first paragraph of the selection, "The Camel," and discuss with them the sample outline. They should be able to work independently from this point on.

Answers

- II. Camels will eat anything.
 - A. Hard dates or dry beans from master
 - B. Thistles and thorny shrubs when roaming
 - C. Leather from harness, cloth from tents, and baskets
 - D. Draws upon hump when food is scarce
- III. The camel can learn, but he complains.
 - A. He can be taught to kneel, but moans.
 - B. He knows a load will be put on his back, so complains before the load is placed there.
 - C. He groans as loudly for light load as heavy.
- IV. The camel is the most useful animal in hot, dry countries.
 - A. It furnishes milk and meat for desert people.
 - B. Its hair is woven into cloth for robes and turbans.
 - C. Tents of camel hair cloth are used for family shelter.
 - D. It carries loads across desert sand.

FACT OR OPINION? (Page 59)

Purposes

(1) To provide experience in discriminating between fact and opinion; (2) to acquaint students with some of the cues that will help them in making such decisions.

Procedure

Supplement the procedures stated in the student's book with any discussion that seems advisable.

Answers

Deciding on Fact or Opinion in Statements

1. Opinion 2. Opinion 3. Opinion 4. Fact 5. Opinion

Deciding on Fact or Opinion in Conclusions

Answers given below are the ones that will occur most often. If some students choose "Need more information" for any of the three, however, this answer should be accepted.

1. Conclusion: We are using up our minerals much too fast. Probably fact.
2. Conclusion: There is no need for any man to be bald anymore. Probably opinion.
3. Conclusion: Hence came the term baker's dozen. Probably fact.

Procedures for Teaching

UNIT FIVE

OTHER WORLDS (Pages 60-73)

Selection of Topic

The topic was chosen for this unit because of the current interest of students in outer space, and because of the increasing attention given this topic in special subject fields.

THE WONDERFUL DISCOVERY ON MARS (Pages 60-61)

Purposes

(1) To provide a narrative that has strong appeal to students' interests; (2) to develop appreciation by providing opportunities to compare characters, decide what action the reader would have taken had he been in the character's place, locate the most exciting part, discuss reasons for behavior, and draw inferences; (3) to check comprehension in relation to speed; (4) to offer leads into the subject matter selections which follow.

Procedure

Have the material on these two pages used in the same general way as previously suggested.

Answers

Comprehension Questions

1. Problems of climate and food
2. He believed that they were tiny flakes of hard snow.
3. He believed that they were canals.
4. He believed that they were plants.
5. Desert
6. Underground
7. Storage tanks, pipelines, underground meadows
8. He thought an earthquake had covered them.

9. He thought that they may have moved to another planet.
10. How Martians got water, how Martians got food, how people can live on Mars

Discussion Questions

There can be but one answer to questions 2 and 4.

1. (a) They could be cracks in the rocks. (b) They could be dark streaks in the rocks. (c) They could be roads. (d) They could be an optical illusion.
2. To meet the problem of living on Mars
3. (a) Yes, because he took his wife and son with him. (b) The year was 1980 A.D., and by that time spaceships may be as common and as safe as airplanes today.
4. The pull of gravity is much less on Mars.
5. (a) He found coft digging there, possibly because it was a former entrance to the underground tanks. (b) He might have had an animal's sixth sense that something important was underneath.
6. (a) The crew might have returned to earth with no information about plants or water storage. (b) It might have been many years before earth people learned how to live on Mars long enough to make worthwhile explorations.
7. (a) When Jackie was lost. (b) When the men discovered the underground tanks and plants.
8. (a) Yes. It would be a thrilling adventure. (b) No. I don't think I'd want to go at this time. I would rather wait until spaceships are perfected and we know more about Mars.
9. (a) Ten years, because I read this in a paper. (b) 20 years, because I heard a scientist on the radio say so. (c) Five years because I think we'll have the equipment by then to do it; and so forth.
10. (a) An encyclopedia, science books, science periodicals

CLIMATE AND THE WORLDS (Pages 62-63)

Purposes

To provide a social studies selection which will offer opportunity to give practice on the following skills: (1) reading pictures to obtain cause and effect relationships; (2) reading maps to find temperature zones; (3) grasping author's conclusions; (4) testing an author's conclusions.

Procedure

Most students should be able to follow the instructions in their book for working with this selection. Since, however, the section "Judging and Testing Conclusions" introduces a new technique, make sure that students understand how to work with this section.

Answers

Activity 1—Effects of Climate

Picture A.

1. Homes: made of ice, because ice is only material available
2. Food: seals and other arctic animals, because fruits and vegetables aren't available
3. Clothing: skins and furs, because of cold
4. Transportation: snowshoes, snow-sledges, because they have to travel over snow
5. Occupations: hunting and fishing because it's too cold for farming

Picture B.

1. Homes: made of wood and thatch, because these are plentiful
2. Food: tropical fruits and vegetables, fish, because they grow well
3. Clothing: light, loose cloth, because of heat
4. Transportation: canoes, head-baskets, slings, because these are suitable to jungle
5. Occupations: farming, fishing, because crops and fish grow well in tropics

Activity 2—Judging and Testing Conclusions

1. Zones of Great Nations: Any of those listed below are acceptable. Egypt, Greece, Rome, and other great nations of the past may also be accepted. All were in the North Temperate Zone.

Some Great Nations

In What Zone?

United States

North Temperate

Britain

North Temperate

France

North Temperate

Germany

North Temperate

Russia

North Temperate

China

North Temperate

The author is right in his conclusion.

2. The inventors mentioned below or others are appropriate:

Eli Whitney	Cotton gin	United States
Guglielmo Marconi	Wireless telegraph	Italy
Thomas Edison	Electric light	United States
Charles Goodyear	Vulcanized rubber	United States
Robert Fulton	Steamboat	United States
Galileo	Telescope	Italy
Rudolph Diesel	Diesel engine	Germany
William Roentgen	X-Ray machine	Germany
Blaise Pascal	Adding machine	France
Hermann Oberth	Plans for space rockets	Germany
William Lee	Knitting machine	England

These people all lived in the (north) temperate zone. The author is right.

OUR NEIGHBORS IN SPACE (Pages 64-65)

Purposes

To give experience in: (1) identifying the detailed factual information pattern of science writing and in using appropriate procedures for reading this type of material; (2) reading for general information; (3) grasping details; (4) recalling details; (5) interpreting a diagram; (6) rapid reading of science material.

Procedure

Supervise the students to make sure that they time their first reading of the selection for general information, and that they do Activity 1 before re-reading the selection for the purpose of outlining the first two paragraphs on a separate piece of paper.

Activity 1 is to be used as a basis for checking the student's comprehension of the timed reading. Discuss the resulting speed and comprehension scores in relation to each other. Also have students compare these scores with the ones they made in reading the narrative "The Wonderful Discovery on Mars," pages 60-61, and the social studies selection "Rules for Good Sportsmanship," pages 34-35.

They should be assured that their speed in reading science material is expected to be slower than their speed in the other two subject fields.

Answers

Activity 1—Checking Information

- | | | |
|---------------------|-------------|--------------------------------|
| 1. Mars | 4. The sun | 8. No air or water |
| 2. Yes (plant life) | 5. Mercury | 9. Jupiter |
| 3. The sun | 6. Venus | 10. An escaped moon of Neptune |
| | 7. The moon | |

Outlining Paragraphs (Suggested in the Instructions)

- I. Main idea: Mars has been a subject of study for many years.

Details: A. Scientists have found out about its size, movements, and materials.

B. It is a sphere of rock.

C. Its diameter is about 4,200 miles.

D. Its path around the sun is oval.

E. About 687 days are needed for Mars to travel around the sun.

- II. Main idea: The atmosphere of Mars is of interest to scientists because they have thought life might exist there.

Details: A. It has an atmosphere with some oxygen and water vapor.

B. It has seasons.

C. We can see something that looks like ice caps in the region having winter.

D. The ice seems to melt in spring and summer.

E. Blue-green patches appear.

F. These patches are thought to be plant life, similar to our algae and mosses.

G. There is no evidence of animal or human life.

Activity 2—Listing the Planets in Order

- | | | |
|------------|------------|-----------|
| 1. Mercury | 2. Venus | 3. Earth |
| 4. Mars | 5. Jupiter | 6. Saturn |
| 7. Uranus | 8. Neptune | 9. Pluto |

Applying What You Have Learned about Reading Science Material

Suggestions similar to those given below will prove useful to the students:

"You have learned that science material which gives you straight information is often easier to read than some of the other types. You have also learned that you can read such material quite fast if you are just following it through to get general ideas. The important thing for you to do is to recognize such material when you find it, and to adjust your speed and purpose to it.

"Usually, when reading science information rapidly for general understanding, you will come across parts which you will want to reread carefully for details. If so, you will find it helpful to outline certain paragraphs."

DISTANCES AND SIZES (Pages 66-67)

Purposes

(1) To apply all procedures learned in reading problems without the use of guiding questions; (2) to chart information needed in solving a set of problems.

Procedure

The procedure given in the student's book should be sufficient. Answers for computations follow the chart.

Answers

Prob. No.	Asks You to Find	Facts Given	Process to Use	Estimate of Answer
1.	How many miles further from the earth is Mars than the moon	240,000 mi.; 48,000,000 mi.		47,800,000 mi.

Prob. No.	Asks You to Find	Facts Given	Process to Use	Estimate of Answer
2.	The difference between the diameter of the earth and the diameter of Mars	7,918 mi.; 4,216 mi.	—	4,000 mi.
3.	The number of 30-day months it would take Mars to make one revolution	687 days; 30 days = 1 mo.	÷	23 months
4.	How much farther Neptune is from the sun than Mars	2,793,000,000 mi.: 141,000,000 mi.	—	2,700,000,000
5.	a. The number of miles a jet could fly in a day	24 hours; 740 mph	x	14,000 mi.
	b. The number of days a jet would take to reach Mars	48,000,000 mi.; 740 mph	÷	3000 days (45,000 ÷ 15)
6.	The number of miles the earth travels around the sun in a day	72,000 mph; 24 hrs.	x	1,400,000 mi.
7.	The number of times greater Jupiter's diameter is than the earth's diameter	88,700 miles; 7,918 miles	÷	11 times
8.	Colonel Dixon's weight on Mars	172 lbs.; 38%	x	80 lbs.
9.	a. The number of miles light travels in a minute	186,000 mi. per sec.; 60 seconds	x	12,000,000 miles
	b. The number of miles light travels in an hour	186,000 mi. per sec.; 60 min.	x	720,000,000 miles
10.	The per cent of all the stars that could be seen without a telescope in a year that were seen on a single night	1,865 stars; 5,000 stars	÷	40%

Computed Answers

- | | |
|---------------------------------------|--|
| 1. 47,760,000 miles | 6. 1,728,000 miles |
| 2. 3,702 miles | 7. 11.2 times |
| 3. 22.9 months | 8. 65.36 lbs. |
| 4. 2,652,000,000 miles | 9. a. 11,160,000 miles
b. 669,600,000 miles |
| 5. a. 17,760 miles
b. 2,702.7 days | 10. 37.3% |

PREFIXES, SUFFIXES, AND ROOTS (Page 68)

Purposes

(1) To develop meanings and use of some new prefixes and suffixes; (2) to develop the meanings of some roots; (3) to give experience in combining these roots and root words.

Procedure

The instructions given in the student's book should be sufficient.

Answers

Working with Prefixes

- | | | |
|------------------------|------------------------|--------------------------|
| 1. <u>export</u> | 2. <u>express</u> | 3. <u>circumnavigate</u> |
| 4. <u>indebtedness</u> | 5. <u>circumscribe</u> | 6. <u>inability</u> |

Working with Suffixes

- | | | |
|-----------------------|----------------------|---------------------|
| 1. <u>fractional</u> | 2. <u>westward</u> | 3. <u>homeward</u> |
| 4. <u>intentional</u> | 5. <u>changeable</u> | 6. <u>peaceable</u> |

Combining Roots

Combined Roots

telescope
telephone
telegraph
teletypewriter

Meaning

far-viewer
far-sounder
far-writer
a machine that writes
type at a distance

Additional Activities

If you think it is desirable to review prefixes and suffixes previously used in this book, the exercises below may be placed on the chalkboard.

Reviewing Prefixes

Here are the meanings of several prefixes which you have had before:

trans:	across
over:	more, too much
un:	not
out:	out, outside, passing beyond
mis:	wrong, bad
under:	under, not enough
re:	again
dis:	apart, not

Write one of the prefixes before each of these words:

- _____ view: to view again
- _____ scribe: to write across, or in a different set of symbols
- _____ run: to run faster than someone else
- _____ continue: to stop
- _____ behavior: bad behavior
- _____ discussed: not discussed
- _____ answered: answered again
- _____ weight: not heavy enough

Answers

- | | | | |
|-----------------------|-----------------------|----------------------|-----------------------|
| 1. <u>review</u> | 2. <u>transcribe</u> | 3. <u>outrun</u> | 4. <u>discontinue</u> |
| 5. <u>misbehavior</u> | 6. <u>undiscussed</u> | 7. <u>reanswered</u> | 8. <u>underweight</u> |

Reviewing Suffixes

Here are the meanings of several suffixes which you have had before:

ment:	result or process of
en:	made of
less:	without
ist:	one who

Write the correct suffix at the end of each word:

- invent _____ : result of inventing
- sudden _____ : in a quick manner
- luck _____ : without luck

er: one who	4. state _____ : the result of stating
ness: state of being	5. train _____ : one who trains
ful: full of	6. skill _____ : full of skill
ly: in a manner	7. fresh _____ : state of being fresh
ion: act, state, result of	8. art _____ : one who works with art
	9. wood _____ : made of wood

Answers

1. <u>invention</u>	2. <u>suddenly</u>	3. <u>luckless</u>
4. <u>statement</u>	5. <u>trainer</u>	6. <u>skillful</u>
7. <u>freshness</u>	8. <u>artist</u>	9. <u>wooden</u>

DIVIDING WORDS OF SEVERAL SYLLABLES (Page 69)

Purpose

To give experience in applying all information learned so far about syllabication in dividing words of several syllables.

Procedure

Follow the procedure given in the student's book. If students need special help, divide a few of the words on the chalkboard as they tell you where to place the division marks, and why. To check answers, read horizontally.

Answers

sud/den/ly	par/a/graph	rep/re/sent	men/tal/ly
es/ti/mate	ho/ri/zon	pro/ce/dure	con/so/nant
re/la/tion	ex/pan/sion	tra/di/tion	suc/cess/ful
ver/ti/cal	con/clu/sion	for/mu/la	tel/e/phone
in/ven/tion	prac/ti/cal	bat/ter/y	in/stru/ment
re/leas/ing	de/scend/ant	mean/ing/ful	di/rec/tion

dif/fi/cult	frac/tion/al	im/por/tant	in/vo/ca/tion
pic/to/graph	tel/e/graph	in/struc/tions	meas/ure/ment
set/tle/ment	com/pa/ny	prob/a/bly	syl/la/ble
ad/ven/ture	per/mis/sion	es/tab/lish	pos/si/ble
in/dus/try	ar/range/ment	Ot/ta/wa	to/bac/co
con/ti/nent	an/ces/tor	con/flict/ing	com/mon/ly
in/for/ma/tion	Vic/to/ri/a	in/debt/ed/ness	re/cum/bent
Sas/katch/e/wan	com/bi/na/tion	op/er/a/tor	hor/i/zon/tal
trans/por/ta/tion	ap/prox/i/mate	re/cov/er/y	tel/e/type/writ/er
re/sent/ment	gi/gan/tic	ther/mom/e/ter	de/moc/ra/cy
rep/re/sen/ta/tive	op/por/tu/ni/ty	im/me/di/ate/ly	e/lec/tro/mag/net

WORKING WITH ACCENT MARKS

(Page 70)

Purposes

To give practice in: (1) placing accent marks in known words; (2) placing accent marks in different places in known words and noting the effect upon pronunciation; (3) placing accent marks in different places in words that are accented differently when used to express different meanings.

Procedure

Follow the procedure in the student's book.

Answers

Working with Accent Marks

won'der	free'dom	kitch'en	doz'en
hid'den	protect'	fin'ger	report'
discuss'	shel'ter	dan'ger	surprise'
sho'vel	unload'	pa'per	of'fice
sup'per	hap'pen	hotel'	command'
sci'entist	sev'eral	amuse'ment	gov'ernment
Sat'urday	sud'denly	sim'ilar	conclu'sion
cus'tomer	describ'ing	gos'sip	ar'ticle
tel'ephone	profes'sor	pos'sible	dif'ficult
Amer'ican	inform'	op'erate	expe'rience
oc'cupy	propose'	inhab'itant	remark'able

Placing Accent Marks in Words That Are
Accented in Two Different Ways

1. per'fect 2. perfect' 3. increase' 4. in'crease 5. ex'pert 6. expert'

WORKING WITH SOCIAL STUDIES WORDS
(Page 71)

Purpose

To acquaint students with the pronunciation and meaning of technical words that occur with high frequency in high school social studies texts.

Procedure

Follow the usual procedure.

Answers

- | | | |
|----------------|------------------|----------------|
| 1. legislation | 6. referendum | 11. suffrage |
| 2. propaganda | 7. nullification | 12. judicial |
| 3. rebellion | 8. monopoly | 13. induction |
| 4. tariff | 9. neutrality | 14. missionary |
| 5. ratify | 10. reparations | |

SCANNING FOR NUMBERS
(Page 72)

Purpose

To develop the technique of scanning reading material for numbers.

Procedure

Work with the students as they read the directions for scanning numbers. Discuss these instructions and supervise the students in applying them. In checking answers, remember that students were asked for round numbers.

Answers

Banff National Park

- | | | |
|----------------|---------------|----------------------|
| 1. 22 | 2. 70 miles | 3. 2564 square miles |
| 4. 11,870 feet | 5. Over 90 F. | 6. 2,000,000 tons |

Riding Mountain Park

- | | | |
|---------------|--------------|-----------------------|
| 1. 150 miles | 2. 175 miles | 3. 1,184 square miles |
| 4. 1,100 feet | 5. 3,000 | 6. 9 miles |

Applying What You Have Learned About Scanning for Numbers

The following suggestions may be used to encourage students to apply this work to other subjects.

When you wish to find and remember numbers about some topic, don't read all of the words in the paragraphs in which the numbers appear. Scan only for numbers, as you were taught to do on these pages. When you find a number, read just enough of the words on each side of it so that you know what the number means. Then scan on for the next number, and so on. You will be able to remember the numbers much better if you will: (1) think about the order in which the numbers are given; (2) compare the different numbers; and (3) try to think of the relationship which one number has to another.

ORGANIZING SENTENCES INTO PARAGRAPHS

(Page 73)

Purpose

To give experience in: (1) identifying sentences in terms of topics to which they belong; (2) organizing sentences into paragraphs.

Procedure

Follow the procedure given in the student's book. Some students may find this a difficult exercise to do. Give as much assistance and supervision as is necessary.

Answers

Identifying Sentences in Terms of Topics

1. 1	7. 1	13. 4	19. 3
2. 2	8. 2	14. 1	20. 2
3. 3	9. 3	15. 3	21. 4
4. 4	10. 4	16. 2	22. 3
5. 2	11. 1	17. 1	23. 4
6. 3	12. 2	18. 4	24. 1

Organizing Sentences into Paragraphs

Surface

Ontario, the second largest of Canada's provinces, can be roughly divided into two regions. The southern region is bounded by Lakes Huron, Erie, Ontario and Nipissing. Most of this area is low and fertile. To the north of Lake Nipissing, however, lie wild areas of rocky and forested country. Among the forests are scattered thousands of lakes and rivers. In fact, one-fifth of the province is covered by water.

Farming

The chief farming areas of Ontario lie in the south. Here the summers are longest and the winters least severe. Here too, large cities such as Toronto, Hamilton, Windsor and Ottawa provide a ready market for agricultural produce. The eastern lowlands along the St. Lawrence are noted for their dairy products. Elsewhere are grown peas, beans, corn, sugar beets, peaches, apples and grapes. Much of this produce is sent to canning factories.

Mining

Ontario produces one third of the value of all the mineral output of Canada. Minerals are produced chiefly in the north of the province around centers such as Sudbury, Kirkland Lake, Timmins and Cobalt. Here is produced nearly all of Canada's nickel, platinum and cobalt. The province produces, however, very little coal. This mineral therefore has to be imported from the United States. However, this lack of coal is compensated for by cheap hydro-electric power drawn from plants such as that at Niagara Falls.

Manufacturing

An abundance of raw materials, close markets, and easy transport contribute to making manufacturing the largest industry of Ontario. The chief industrial area lies at the western end of Lake Ontario. Paper, steel and automobiles take the lead among manufactured products. Also important are rubber and electrical goods, aircraft, clothing, chemicals and furniture. Quite a number of Ontario's other manufactured products are connected with the agricultural industry. Among these products are agricultural machinery, leather, canned meat, flour and cheese.

Procedures for Teaching

UNIT SIX

WELDING A DOMINION

(Pages 74-87)

Selection of Topic

The building of the first transcontinental railroad was chosen as the subject of this unit because of the interest this thrilling episode in Canadian history holds for teen-age boys and girls, and because it offers rich leads into several subject fields.

A MAN OF STEEL

(Pages 74-75)

Purpose

(1) To provide a story of strong appeal to high school students; (2) to develop appreciation through such activities as drawing inferences in regard to

deeper meanings, visualizing word pictures, interpreting colloquial language, evaluating a character's actions, comparing characters, and locating the most exciting incidents; (3) to provide experience in timed reading; (4) to check comprehension in relation to speed; (5) to furnish motives for reading additional selections in the unit.

Procedure

Follow the same procedure as suggested for preceding stories.

Answers

Comprehension Questions

1. In Illinois
2. 38 years of age
3. Hunting for fossils; collecting Japanese pottery; raising mushrooms
4. He would risk arrest or injury during the day.
5. Copying a geology book by longhand
6. Intelligence; diligence; zest for living; tremendous energy; courageous; many interests; ambitious; loved hard jobs
7. Between dawn and dusk train trip from Winnipeg to Rockies possible
8. Made the trip on the longest day of the year, June 21st
9. Joining the provinces of Canada
10. He welcomed it and persisted until successful.

Discussion Questions

Any of the following answers or others are appropriate.

1. To lay tracks along the northern shore of Lake Superior was too difficult (muskeg and rock).

To build a railroad over the mountains would be impossible.

To cover such a vast distance would take too long and be too expensive.

To persuade workers to undertake such hard work in isolated country would be difficult.

2. The building of the railroad under such tremendous difficulties caused him to give his loyalty to a country which so challenged him.

3. Yes, the qualities of steel, toughness, durability, capacity for doing many tasks well, were some of the qualities which Van Horne himself had.

4. Van Horne enjoyed living to the full. He engaged in many varied activities and did each one as well as he could. Whatever he did he did with courage and little regard for his own safety. He seemed determined to get as much from life as he could in any one particular day and situation.

5. Van Horne worked as hard as his men did. He worked among them and led them in difficult tasks showing them that he did not expect them to take risks which he himself was not willing to take. He was keenly appreciative of a hard job well done and complimented his men on overcoming difficult situations.

6. Yes, it helped him to keep his work of building the railroad in perspective. Hobbies help to relieve the pressure of the daily work.

7. Yes, Van Horne was the man who provided the vital leadership and energy to keep the men working on the job of building the railroad.

8. The building of the railroad involved uniting closely the sections of railroad track. Similarly the western portion of Canada was united closely with the eastern part by the railroad.

LINKING WEST WITH EAST (Pages 76-77)

Purposes

To provide a selection that offers opportunity for practice on the following skills needed in reading social studies material: (1) scanning for specific items; (2) associating dates with events in sequence; (3) evaluating author's conclusion; (4) giving reasons; (5) summarizing a picture map; (6) taking notes.

Procedure

Work with the students while reading all of the directions, and make sure they all understand what to do. Have them write their paragraph concerning the picture on a separate piece of paper before scanning. Supervise their scanning of the article to make sure that they do scan three different times for the three different purposes stated and that they do the accompanying activity after each scanning.

They are to use a separate piece of paper for recording the information concerning mileage numbers and business numbers. It would be helpful if you would write on the chalkboard the headings shown for Activities 2 and 3 under "Answers" following. These headings will aid students in organizing both their reading and their written responses.

Answers

Reading the Picture

The student's paragraph about the information given in the picture may read something like this:

History of the First Transcontinental Railway

Answers

Activity 1-Dates and Events

<u>Events</u>	<u>Year</u>	<u>Month</u>
1. A railway to link west with east promised to British Columbia	1870	
2. Announcement of CPR agreement to build and operate the railway	1880	
3. Van Horne began to build the railway in 3 places	1882	
4. Last spike of the railway driven in at Craigellachie	1885	November
5. First transcontinental train left Montreal	1885	October
or		
First transcontinental train arrived in Port Moody	1885	November

Activity 2-Mileage Numbers

<u>No. of Miles</u>	<u>What This Number Represents</u>
1. 2,000 miles	Distance between British Columbia and Manitoba and eastern provinces
2. 1,000 miles	Prairie land between Winnipeg and the Rockies
3. 500 miles	Mountainous region between the prairies and the western coastal region

Activity 3-Business Numbers

<u>Number</u>	<u>What This Number Represents</u>
1. 3	Places where the building of the railroad began
2. \$500,000	Cost of building the railroad along shore of lake
3. \$2,000,000	Cost of dynamite used to blast rock along lake shore
4. 10 feet	Depth to which lake was lowered

Activity 4-Reasons

1. In support of statement: If the west was to be a part of Canada they would have to be able to conduct business surely and safely. Also people and goods would have to be ensured of safe conduct to and fro. People would come west to help settle the west if they could be ensured of safe travel.
2. Yes. As the difficulties were many, to seek the solution of three problems simultaneously helped to speed up the completion date. The men would have the added motivation of trying to link up their section with those working towards them. The problem of supplies was simplified because supply depots in both east and west were closer to working areas when they were divided.

Applying What You Have Learned About Studying Social Studies Material

The following suggestions will be helpful to your class:

"In reading a picture it is often helpful to organize the information you get by writing it in the form of a paragraph.

When you are reading or reviewing a section of text just for the purpose of fixing in your mind dates, costs, or numbers about any other aspect of the subject, use the scanning procedure. After locating the numbers and thinking about what they represent, write them in a list together with the meaning of each. By this time you will find that you know them."

VOICES FROM COAST TO COAST

Purposes

To provide a science selection that will offer the opportunity to practice on the following skills: (1) identifying and understanding the explanation of a process pattern; (2) interpreting diagrams; (3) stating sequential steps in a process; (4) reading to answer specific questions.

Procedure

This selection also represents the pattern of science material that is most difficult to read. Work with the students while they are reading the instructions. Make sure that they understand how to proceed in reading this type of material.

When the students have finished their work and checked their answers, strongly recommend that they carry over the techniques they have learned when reading explanations of processes in their science textbooks.

Answers

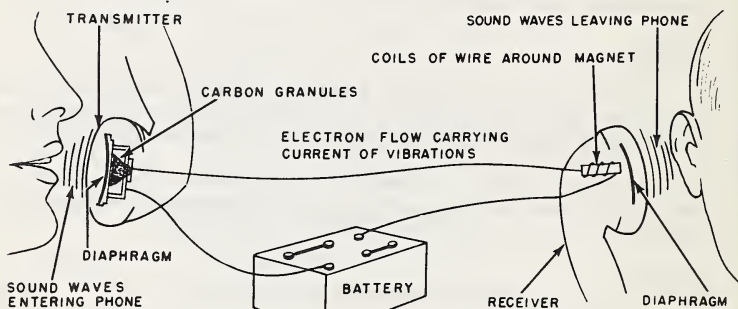
Activity 1-Listing Steps in a Process

- A. (1) My voice sets up strong and weak waves in the air.
- (2) The waves strike against a diaphragm.
- (3) The diaphragm catches these vibrations and sends them on into a box containing carbon granules.
- (4) The grains of carbon become more or less closely packed, as my voice varies.
- (5) In turn, more or less electricity passes through the granules.
- (6) The electric current carries all of these changes along over the wire.
- B. (1) The strength of the current reaching the receiver becomes strong or weak as the vibrations of my voice act on the carbon granules in the transmitter.
- (2) This changing electric current acts upon an electromagnet which acts upon a diaphragm, pulling it inward when the current is strong, letting it go back when the current is weak.

- (3) Changes in the diaphragm set up sound waves in the air.
- (4) Sound waves travel to your ear.
- (5) The sound waves vibrate at the same rate as my voice, and you can hear me.

C. Atoms are made of two parts-heavy, positive particles called protons, and light, negative particles called electrons. Atoms usually have an equal number of electrons and protons. A battery or generator, however, destroys the balance. Protons collect at one pole, electrons at the other. When the poles are connected by a copper wire, the electrons start to flow toward the protons in order to restore the balance. This flow is called an electric current. The balance never is restored while the battery or generator is working, however, because the battery or generator continues to draw off electrons as soon as they reach the protons. This continuing flow is called a circuit.

Activity 2-Making a Diagram



Purpose

To give practice on skills necessary: (1) in reading a pictograph, divided bar graph, horizontal bar graph, line graph, and circle graph; (2) in making a graph as a basis for better interpretation of other people's graphs.

Procedure

After students have read the first three paragraphs, discuss the importance of reading graphs correctly. They should be able to follow the instructions in working with these pages.

Answers

Pictograph Showing Comparisons

- | | |
|-------------------------------|----------------------------|
| 1. Number of railroad workers | 2. Workers from Callendar, |
| Winnipeg, and Port Moody | 4. 21,000 |
| 3. 1,000 | |
| 5. 7,000 | |

A Divided Bar Graph

- | | | |
|----------------|--------------|-------------------|
| 1. mountains | 2. 500 miles | 3. 100 miles more |
| 4. 2,900 miles | 5. 5/29 | 6. 10/29 |
| | | 7. 14/29 |

Horizontal Bar Graph

- | | |
|--|----------------------------|
| 1. Miles per hour | 2. Means of transportation |
| 3. 350 mph; 70 mph approx.; 40 mph approx. | |

A Line Graph

- | | | |
|-----------------------------|---------------------|------------|
| 1. Steve's change in weight | 2. Weight in pounds | 3. months |
| 4. September; October | 5. December | 6. January |

A Circle Graph

1. Food, $\frac{1}{2}$; clothing, $\frac{1}{4}$; recreation, $\frac{1}{8}$; miscellaneous, $\frac{1}{8}$
2. Food, 50%; clothing, 25%; recreation, 12 $\frac{1}{2}$ %; miscellaneous, 12 $\frac{1}{2}$ %
3. Clothes, \$225.00; food, \$450.00; miscellaneous, \$112.50; food and clothes, \$675.00

Making a Graph of Your Own

(See page 106 for graph.)

MARKING WORDS WITH TWO ACCENTS

AND

ONE VOWEL SOUND FOR A, E, O, AND U

(Page 83)

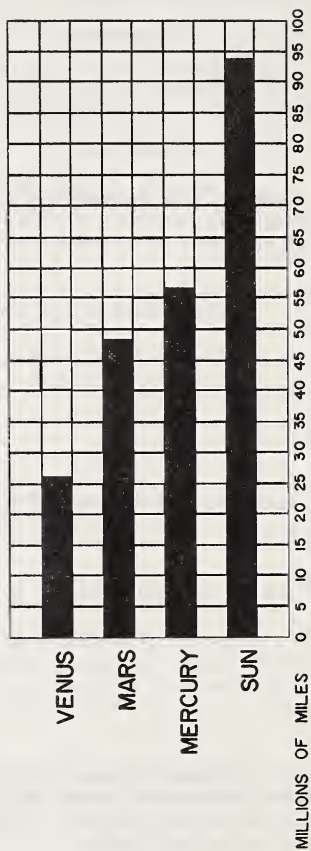
Purposes

(1) To develop the meaning of primary and secondary accent marks; (2) to give practice in placing these marks in words. (3) To review the schwa sound of vowels; (4) to develop the concept of the schwa sound always appearing in unaccented syllables; (5) to review syllabication.

Procedure

The instructions in the student's book should be sufficient.

Making a Graph of Your Own



Distances of the Sun and Some of the Planets from the Earth

Answers

Marking Words with Two Accents

kan' ga roo'

crack' er jack'

New' found land'

clas' si fi ca' tion

man' u fac' ture

con' ti nen' tal

Sas' ka toon'

ex' plo ra' tion

au' to mo' bile

hip' po pot' a mus

ar' ma dil' lo

Man' i to' ba

in' de pend' ent

un' der shirt'

ter' ri tor' y

e lec' tro mag' net

One Vowel Sound for A, E, O, and U

ā/head

so/fa

ā/bound

bal/ānce

ā/bridge

pā/rade

wis/dōm

sūs/pect

ā/low

an/gēl

fal/lēn

bot/tōm

ca/nōe

can/yōn

fresh/ēn

ōc/cur

treat/ment

sup/pose

sig/nāl

post/mān

re/cēnt

spo/ken

sha/ken

bar/rēl

reck/ōn

ā/wait

sof/tēn

ac/count

quick/ēn

wag/ōn

cir/cus

ba/cōn

WORKING WITH SCIENCE WORDS

(Page 84)

Purpose

To acquaint students with the pronunciations and meanings of special words that they meet in their science textbooks.

Procedure

Follow the same procedure as previously used in working with vocabulary pages.

Answers

1. Galileo

2. constellation

3. galaxy

4. asteroid

5. eclipse

6. magnitude

7. astrology

8. contour plowing

9. conservation

10. amperes

11. electromagnet

12. generator

13. hydroelectric

FINDING CAUSES AND EFFECTS

(Page 85)

Purposes

To give experience: (1) in identifying effects produced by causes and (2) causes that produce effects.

Procedure

Follow the procedure suggested in the student's book. Give special help if needed.

Answers

Causes and Effects

1. Cause: Great ice sheets from the Arctic region
Effect: Changed the contour of the land
2. Cause: Irrigation
Effect: The deserts bloom.
3. Cause: Getting logs out of tropical forests is a difficult problem.
Effect: Very little logging is done.

Effects and Causes

1. Effect: A dog turns around before lying down.
Cause: The wild dog turned around to trample grass.
2. Effect: When you pop corn the kernels suddenly burst.
Cause: Moisture inside the kernel turns to steam and bursts the shell.
3. Effect: Bird's-eye maple has marks that look like bird's eyes.
Cause: Injury to the bark.

USING AN ENCYCLOPEDIA
(Pages 86-87)

Purposes

To give practice (1) in locating the volume in which a specific topic is discussed; (2) in making use of an encyclopedia index.

Procedure

Instructions given in the student's book should be sufficient.

Answers

Locating Volumes

(One-Word Topics)

1. birds . . .	2	5. glass	7	9. snakes . . .	13
2. India . . .	8	6. electricity . .	5	10. Africa . . .	1
3. Toronto . .	14	7. flags	6	11. cattle . . .	3
4. whales . .	15	8. diamond . .	4	12. Japan . . .	8

Topics of Two or More Words)

1. Tom Thomson	14	6. British Columbia	2
2. Anapolis valley	1	7. Elizabeth II	5
3. folk-lore	6	8. Wilder Penfield	11
4. Canadian Government . . .	3	9. Pauline Johnson	8
5. first aid	6	10. Charles Saunders	13

Using an Encyclopedia Index

1. Baldwin, Bienville, Cadillac, Cartier, Champlain, Macdonald, Tupper, Hudson, Iberville, La Salle
2. D-113
3. M-118; P-351-4; K-46; S-347
4. A-147; R-286; C-109
5. 1869-1944
6. H-512; C-103
7. T-50-1
8. T-48
9. M-118
10. S-347

Procedures for Teaching

UNIT SEVEN

REBELLION IN THE WEST

(Pages 88-101)

Selection of Topic

Rebellion in the West was chosen as the subject of this unit because it offers an opportunity to provide selections of interest to high school students, and because it provides a good basis for skill development of articles in different subject fields.

LOUIS RIEL, MÉTIS HERO

(Pages 88-89)

Purposes

(1) To provide an exciting story for teen-agers; (2) to develop appreciation through such activities as drawing inferences in regard to deeper meanings, sensing a character's actions, locating the point of greatest stress, visualizing word pictures, and discussing outcome if events had been different; (3) to provide experience in rapid reading; (4) to check comprehension in relation to speed; (5) to furnish leads into social studies, science, and mathematics selections.

Procedure

Follow the usual procedure.

Answers

Comprehension Questions

1. 1844-1885
2. Montreal
3. To obtain a French language education
4. In the Red River Valley
5. People feared loss of farms and hunting grounds.
6. He could negotiate with officials to help his people.
7. No
Any five of these:
8. (a) independent (b) hot-tempered (c) proud (d) intelligent
(e) sympathetic (f) brave (g) clever (h) nature-loving

Discussion Questions

1. Since the Canadian Government had taken over the land, it was thought necessary to have it surveyed and it had been decided to use a system of land survey similar to that used in the western part of the United States.
2. Intimidated; angry
3. The change would bring about: (a) loss of freedom to hunt, fish, and trap at will over the land; (b) the retreat of the buffalo herds further west; (c) the loss of the strip farms; (d) domination by the white man.
4. Yes. He had learned to be a great orator and his education had given him knowledge and confidence.
5. (a) Riel might have been given a place in Canadian history beside that of William Lyon Mackenzie and Louis Papineau as a defender of the people's rights; (b) He would not have ruined his career; he might have been considered a hero who had obtained responsible government for the people of Manitoba; antagonism of race and religion between Quebec and Ontario might not have been aroused.
6. A rebel.
7. A paragraph.

Additional Discussion Questions

1. Were the Métis Canadians? Give reasons to support your answer.
2. It was noticed after Riel returned to Canada in 1884, that he abhorred bloodshed. Why do you think he felt this way?
3. Many people thought Riel should not be executed. Many thought he should be. State what you think may have been the viewpoint of each group.

Answers

1. Anyone born on Canadian soil is a Canadian. No doubt almost all of the Métis living in North-West Canada had been born in Canada, and were therefore Canadians.
2. It may have been because he had caused the execution of the prisoner. Riel may have realized that there had been no legal cause to have him executed and was filled with remorse as a result.
3. One group may have thought that Riel was a hero because he had defended the rights of the people of the North-West Territories and set up responsible government. Another group may have thought that Riel was a traitor because he took up arms against the government and also prevented the legal government of the North-West Territories from functioning.

WHY WAS THERE A REBELLION IN 1885?
(Pages 90-91)

Purposes

To provide a selection that offers opportunity for practice in the following skills often needed in reading social studies material: (1) recognizing causes and effects; (2) grasping main ideas and related details; (3) taking notes; (4) outlining; (5) recognizing different points of view.

Procedure

Supervise the students to make sure that they follow instructions 1 and 2 before doing 3.

Follow up the students' work with these pages by asking some of them to give a report with the use of their outlines.

Have the paragraphs representing the two viewpoints read, and invite discussion of the two different points of view.

Answers

Activity 1 and Activity 2

- I. Economic causes were of first importance.
 - A. The buffaloes provided the Métis with food, clothing, and cash.
 - B. White men had slaughtered buffalo causing a scarcity.
 - C. The scarcity of buffalo forced the Métis to farm.
 - D. The government denied their requests for land titles.
 - E. The presence of surveyors caused fear of loss of farms.
 - F. The Métis feared new settlers would possess their land.
- II. There was also a sociological cause.
 - A. The Métis did not like the white settlers' way of living.
 - B. The Métis did not want to move further west or live like the white man.
- III. It was decided to ask Riel to lead the Métis.
 - A. The Métis had no one to lead them.
 - B. The Métis needed someone to negotiate with the government.

IV. Riel arrived at Batoche.

- A. He petitioned the government to give the Metis their rights.
- B. The petitions were ignored.
- C. Riel called for armed rebellion.
- D. The Metis defeated government forces.

Activity 3

The two paragraphs expressing different viewpoints may run something like the ones given below. Individuality should be encouraged.

Viewpoint of a Métis Farmer. Once the buffalo gave us food, clothing and even a little money. Then the white men killed off the herds. I have tried to get food from my land. It is hard work and the crops are never very good. I have little or no money to buy clothes for my family. Sometimes I catch a fish in that good river. We need the river for travel too. The surveyors may take away my river farm. The government would not give me a title to it. Maybe we will soon have no home. My family will starve. If someone would tell me how, I would fight for my farm and family.

Viewpoint of Sir John A. Macdonald on the Situation in North-West Canada in 1884. People are coming to Canada looking for land on which to found homes. Out in the North-West is a vast, empty stretch of fertile prairie. Is it not right to fill this far-flung Canadian prairie with prosperous homes and cities that will cement our Pacific province to the others of the east, rather than leave this land empty but for a few thousand Métis who spend their time hunting, fishing, and trapping while their miserable little strip farms lie neglected? Surveyors laid out the land in preparation for the white man's occupation. Métis did not like this. They wanted titles to their river-front farms. We could not let them keep farms not properly surveyed. They must take on the white man's way of living.

THE BAD LANDS OF DRUMHELLER TELL THE STORY OF THE AGES
(Pages 92-93)

Purposes

This selection provides opportunity for practice on the following skills needed in reading science material: (1) identifying and using techniques appropriate for finding causes and effects; (2) identifying the classification patterns; (3) classifying science information; (4) outlining science information; (5) rapid reading of science material.

Procedure

Follow the procedure in the student's book. Allow 8 points for each correct cause, 10 points for each of the six parts of Activity 2. Perfect score is 100.

Answers

Activity 1-Stating Causes

<u>Effect</u>	<u>Cause</u>
The lowest layers of rock are the oldest.	They were deposited first.
Many of the older layers are tipped or tilted.	Great forces have lifted or folded rock layers.
Sometimes we can see cracks in rock layers.	Rocks have broken and slid apart.
The result is a hard substance known as sedimentary rock.	The ocean squeezed particles together.
Hoodoos are fantastic rock shapes.	Erosion caused them.

Activity 2-Classifying

1. limestone	It is composed of shells of animals and coral.
2. sandstone	It is made up of grains of sand that have been pressed together by ocean pressure.
3. shale	This is made by water pressure on mud in which there are remains of plant and animal life.

Additional Activity

The classification activity below provides additional experience which is valuable. Ask the students to organize their responses in the same way that they did in working with Activity 2.

Name three stages in the development of life as revealed by fossils. Tell how each is distinct from the others.

Answers

1. Plant forms	Very simple plants existed. They grew only in water.
2. Sea animals, birds, insects, land plants	Simple animals, fish, and reptiles appeared in the ocean; birds, insects, and plants began to live on the land.
3. Complex plants and mammals	Very complex plants and mammals developed; ancestors of those we have at present.

Applying What You Have Learned About Reading Science Material

The suggestions below are offered for the teacher's use in helping the class make applications.

"Sometimes you will find the cause-and-effect pattern and the classification pattern in the same chapter or section of your science books. In such a case, the important thing to do is to scan the entire chapter or section to identify these different patterns before you read. Then adjust your purpose and reading procedure accordingly.

"If you are about to read one or more paragraphs that have to do with cause-and-effect, decide what the effect is and read to find what caused it, or vice versa. If you discover the next paragraph or several paragraphs deal with classification, then read to find out what the classifications are and how each one is different from the others.

"In working with difficult material, it will be helpful for you to list causes and effects, as you did in Activity 1. Similarly, it will be helpful to make a chart of classifications, with a phrase or a sentence that tells how each type differs from the others."

READING FORMULAS (Pages 94-95)

Purposes

(1) To awaken in students an awareness of the fact that working with formulas is largely a matter of reading; (2) to give special practice with the reading skills involved in making substitutions in formulas, in translating formulas into words, in selecting formulas, and in writing formulas.

Procedure

Have students follow the instructions in their books, expanding and explaining these instructions if necessary.

Answers

Finding the Perimeter of a Square

2. Formula: $P = 4s$

Substitution: $P = 4 \times 300 \text{ miles}$

Answer: $P = 1,200 \text{ miles}$

Finding the Area of a Rectangle

2. Formula: $A = lw$

Substitution: $A = 60 \text{ miles} \times 9 \text{ miles}$

Answer: $A = 540 \text{ square miles}$

Finding the Circumference of a Circle

2. Formula: $C = \pi d$

Substitution: $C = 3.14 \times 7,900 \text{ miles}$

Answer: $C = 24,806 \text{ miles}$

Translating Formulas into Words

$A = lw$: Area of a rectangle equals length times width.

$C = \pi d$: Circumference of a circle equals pi times diameter.

$P = 4s$: Perimeter of a square equals four times the length of one side.

Selecting Formulas

1. Formula: $P = 4s$ Answer: 144 feet

2. Formula: $C = \pi d$ Answer: 2,714,216 miles

3. Formula: $A = lw$ Answer: 1,026 sq. ft.

Writing Formulas

1. $P = 2l + 2w$; or, $P = 2(l + w)$

2. $A = ss$; or $A = s^2$

WORKING WITH MATHEMATICS WORDS AND PHRASES (Page 96)

Purpose

To provide practice in recognizing pronunciations and meanings of terms used in identifying different kinds of geometric figures.

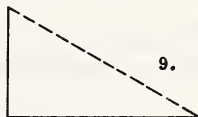
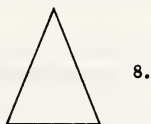
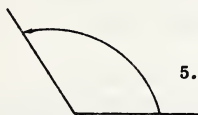
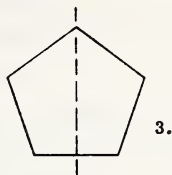
Procedure

Follow the same procedure as used for other pages of this type, except that students should understand that in working with this page, they are to draw many of the figures directly on the page to show their understanding of the shapes of the different figures.

Answers

1. scalene triangle

2. five



SPEEDING UP YOUR DICTIONARY SKILLS (Page 97)

Purpose

To develop greater speed and facility in locating words in the dictionary.

Procedure

Students should be able to follow the directions given in the book without difficulty.

Answers

Quarters of the Alphabet

<u>w</u> fourth	<u>q</u> third	<u>l</u> second	<u>s</u> third	<u>r</u> third
<u>b</u> first	<u>a</u> first	<u>p</u> third	<u>m</u> second	<u>d</u> first
<u>k</u> second	<u>h</u> second	<u>c</u> first	<u>i</u> second	<u>o</u> third
<u>y</u> fourth	<u>f</u> first	<u>j</u> second	<u>e</u> first	<u>u</u> fourth

Alphabetical Arrangement Within Words

- | | | | |
|-------------|-------------|------------|---------------|
| 1. dabble | 5. destroy | 9. donate | 13. duct |
| 2. Darwin | 6. diction | 10. double | 14. dynamite |
| 3. delegate | 7. Diesel | 11. doubt | 15. dynamo |
| 4. destiny | 8. dinosaur | 12. duck | 16. dyspepsia |

Using Guide Words

- | | | | | |
|-----------|-----------|-----------|----------|-----------|
| 1. After | 2. Before | 3. Before | 4. After | 5. After |
| 6. Before | 7. Before | 8. Before | 9. After | 10. After |

USING AN INDEX IN TEXTBOOKS

(Pages 98-99)

Purposes

(1) To give practice on skills necessary in using an index; (2) to give experience in arranging indexes as a means of understanding the format of an index.

Procedure

Students should be able to carry out the instructions without difficulty.

Answers

Using an Index in Textbooks

- | | | | | | |
|-------------|------------------|-------------|--|---------------------------------|--|
| 1. 305,306 | 2. 12 | 3. No, no | 4. According to alphabetical arrangement | 5. a,b,c,c,h,i,m,m,s,s,u,w; yes | 6. Yes; <u>meta</u> comes before <u>mete</u> . |
| 7. Page 313 | 8. Pages 309-311 | 9. Page 306 | 10. Under <u>Meteors</u> in the index | 11. Yes. Look at page 57. | 12. e, i, s, s |
13. They are listed according to alphabetical arrangement.

Making Indexes of Your Own

- | | |
|--|--|
| <p>Canada, modern times 172-182
 boundary line, 175, 179
 Oregon Treaty, 173
 Quebec Act, 68
 relations with United States, 205-209
 Sault Ste. Marie Canals, 179
 Second World War, 179
 settled by French, 92-93
 War of 1812, 174</p> <p>Colonial life in Canada, 137-148
 agriculture, 65-67, 70
 education in, 90-93
 religious freedom in, 62, 73, 81-82, 117
 self-government in, 61-63, 66-67, 85-89, 95-99, 116-121</p> | <p>taxation, 73-77, 119, 121
 trade, 114-115
 unity among Colonists, 60, 83-84, 78-79</p> <p>Communication, 280-282
 cable, 132, 305
 effects of development, 269, 270
 printing press, 131, 133, 248, 301
 radio, 286, 320, 330, 419
 telegraph, 134, 302, 305, 309, 371, 406
 telephone, 131, 273, 376, 422
 wirephoto, 129, 341</p> |
|--|--|

MAKING COMPARISONS

(Pages 100-101)

Purpose

To give practice in reading to find likenesses and differences in social studies topics.

Procedure

In addition to the directions on the page, it may be necessary for you to work through the "likenesses" and "differences" under the first heading with the students.

Answers

Location and Area

Likenesses: Both are islands in the North Atlantic Ocean in the region of the Arctic Circle.

Differences: The entire island of Iceland lies below the Arctic Circle. The greater part of Greenland is above the Arctic Circle. Iceland is a small island. Greenland is the largest island in the world.

Surface

Likenesses: Most of the surface of both islands is not suitable for plant or human life, so the people live along the coasts.

Differences: The central part of Greenland is covered by an icecap. Much of Iceland is a plateau covered with glaciers, snowfields, or rock.

Climate

Likenesses: Both islands are cold, but affected by the warm Gulf Stream.

Differences: The warm Gulf Stream encircles Iceland, keeping the climate relatively mild. Most of Greenland is much colder.

Vegetation

Likenesses: Mosses, birches, willows, and vegetables grow on both islands, and both lack forests.

Differences: Heather and mountain ash grow in Iceland, and farming is possible there. Greenland has no heather or mountain ash, and no farming but sheep-raising.

Animals

Likenesses: Both islands have reindeer and foxes, and there are seals and whales in their surrounding waters. The reindeer have been brought to both islands. Trout are found in the streams of both. There are polar bears in both, also.

Differences: The polar bear, the ordinary fox, Arctic hare, and ermine are natives of Greenland. The polar bear is only seen occasionally in Iceland. The blue and white foxes are natives of this island. Mice and rats have been brought into Iceland. The musk ox and polar wolf have been brought into Greenland. Rivers in Iceland have salmon; no mention is made of salmon in Greenland.

Occupations

Likenesses: An important occupation in both islands is fishing.

Differences: Farming is the chief occupation in Iceland but there is no farming in Greenland. Some sealing and mining are done in Greenland but none in Iceland.

Exports

Likenesses: Both islands export fish and animal skins.

Differences: Iceland exports farm products, but Greenland must import most of its food. Greenland exports eider down, seal oil, and minerals; Iceland does not.

Procedures for Teaching

UNIT EIGHT

TEEN-AGERS IN OTHER LANDS

(Pages 102-103)

Selection of Topic

This subject was chosen as a unit topic because of its interest-appeal and because of its possible application to subject matter in several fields.

CHASED BY CROCODILES

(Pages 102-117)

Purposes

(1) To provide an adventure story that high school students will enjoy; (2) to develop appreciation through sensing deeper meanings, evaluating a character's actions, sensing reasons for a character's behavior, visualizing word pictures, locating the most frightening incident, and comparing settings; (3) to

provide experience in speed reading; (4) to check comprehension in relation to speed; (5) to furnish leads to social studies, science, and mathematics selections.

Procedure

Follow the usual procedure.

Answers

Comprehension Questions

1. India
2. They couldn't catch any large fish.
3. To help keep them from spoiling
4. The hot, dry weather made the water shallow.
5. He didn't like people.
6. Tossed them fish
7. To Harsha's hut
8. He shot at them.
9. He gave them melon.
10. To stop in again

Discussion Questions

Only one answer can be given for Nos. 6, 7, and 8. Various answers are acceptable for the other questions.

1. (a) A forest of bamboo trees with bright-colored birds in them; a stream flowing through the woods; (b) birds singing in bamboo trees, sun shining, wind blowing gently, stream flowing slowly.

2. (a) The story of Lobo, the Malemute, took place in Alaska, where it is cold and there is lots of snow. "Chased by Crocodiles" took place in India, where the climate is warm. (b) There were spruce and pine trees in the Alaska story, and bamboo trees in the India story. (c) There were dog teams in the Alaska story; the animals in the India story were crocodiles.

3. (a) When Nana saw the dozens of crocodiles coming over the hill; (b) when Nana looked back and saw the dozens of crocodiles following him and Baber; (c) when the old man raised his gun.

4. (a) Cooking it; (b) salting it; (c) placing it in a cool underground cellar.

5. (a) Because he shook his fists and waved his stick at them; (b) because they knew he didn't like people.

6. The top of the hill

7. A small house made of the trunks of bamboo trees; a roof made of reeds, rushes, or leaves

8. Because the materials which they had at hand for building were bamboo trees, reeds, rushes, and leaves

9. (a) When Harsha saw the boys in such danger he was sorry for them and came to care for them. (b) When he came to know the boys, he became fond of them.

10. (a) Perhaps his own loved ones had died; (b) perhaps someone did him a great wrong at some time in his life.

TWO TEEN-AGERS IN DIFFERENT LANDS

(Pages 104-105)

Purposes

This selection provides opportunity for practice on the following skills needed in working with social studies material: (1) Recognizing main ideas and related details; (2) drawing inferences; (3) making comparisons; (4) taking notes; (5) outlining; and (6) summarizing.

Procedure

Follow the procedure stated in the student's book.

Answers

Writing Topics

Camilo

- | | | |
|--------------------------------------|---------------------|------------------|
| 2. Camilo's Home | 3. Camilo's Clothes | 4. Camilo's Food |
| 5. Camilo's Recreation (Fun or Play) | | |

Irene

- | | | |
|-----------------|-----------------|-------------------------------------|
| 2. Irene's Home | 3. Irene's Food | 4. Irene's Recreation (Fun or Play) |
|-----------------|-----------------|-------------------------------------|

Activity 1—Outlining Paragraphs

(Second Paragraph Under "Camilo")

II. Camilo's Home

- A. One room, adobe brick
- B. Sleeps on mat on floor
- C. Uses scarf for cover
- D. Beehive-shaped oven on side of room
- E. Jugs on shelf for storing water
- F. Copper kettles, cooking pots, and brightly painted pottery on wall
- G. Wooden chest used for storing clothing
- H. Fishing nets hung to dry at side of room

(Fifth Paragraph Under "Camilo")

V. Camilo's Recreation

- A. Camilo looks forward eagerly to fiestas.
- B. These are religious holidays, including saints' days.
- C. Boys dress up and wear masks.
- D. Parade is followed by dances.
- E. Contest is held in riding a bull while holding onto a strap.

(Third Paragraph Under "Irene")

III. Irene's Food

- A. Parents pride themselves on good table.
- B. Many meals include dishes made from Edam cheese.
- C. Bread, butter, meat, potatoes, fresh milk are served.
- D. They have a vegetable garden.
- E. They are fond of herring and other fish.
- F. Irene and her mother bake cookies and make preserves for dessert.

(Fourth Paragraph Under "Irene")

IV. Irene's Recreation

- A. Bicycle riding
- B. Few autos
- C. Skating in cold weather
- D. Swimming at beach in summer
- E. Watching boys play soccer

Additional Activities

The additional activities given below are valuable in developing reading skills in social studies. The questions in these activities may be written on the chalkboard.

Reading Between the Lines

1. What kind of work do you think Camilo's father does? Why do you think so?
2. What kind of climate do you think they have on the island where Camilo lives? Why do you think so?
3. What kind of climate do you think the country has where Irene lives? Why do you think so?
4. What kind of work do you think Irene's father does? Why do you think so?
5. What do you think is the chief crop in Camilo's country? Why do you think so?

6. Do you think more of the land in Irene's part of the country is used for pasture or for field crops such as wheat? Why do you think so?

Making Comparisons

1. Compare Camilo's house with Irene's house in regard to building materials used. Why are the building materials of these two houses different?

2. Compare the food of Camilo and Irene. In what ways are their foods alike? In what ways are their foods different?

Answers

Reading Between the Lines

1. Fishing; indicated by nets on the side of the room

2. Warm; Camilo wears cotton clothes, wide-brimmed straw hat. In cool weather he adds only a serape and straw sandals.

3. Temperate climate; they raise vegetables, but winters are cold enough for ice-skating.

4. He is a cheesemaker. The story says he makes Edam cheese.

5. Corn, because they have tortillas almost every meal, and the usual drink is soup made from corn

6. Pasture; cheese is made from milk.

Making Comparisons

1. Camilo's house is made of adobe. Irene's house is made of brick with steeply sloping tile roof.

In Mexico they have the kind of mud needed in making adobe houses. In the Netherlands they do not have adobe mud, but they have clay to use in making bricks. Steep tile roofs are needed because of heavy rain and snow.

2. Both use fish and vegetables.

Camilo uses much corn that they grow in Mexico. Irene uses cheese that they make in the Netherlands. Camilo has little meat or fresh dairy products but these are plentiful at Irene's home. Irene has also cookies and preserves.

Applying What You Have Learned About Studying Social Studies Material

Students should apply to their regular study the skills used in working with this selection. This point should be emphasized. Some suggestions which may help to serve this purpose are as follows:

"Sometimes you may find yourself reading a section in your social studies, history, or geography books that is packed with details, and you may have trouble

in grasping all of these details. If so, it will be helpful for you to give each of the paragraphs a title that tells the topic of the paragraph. Then list the details, as you did in the activity.

"In reading the social studies field, especially, you should always try to read between the lines as you did in working with Activity 2. Get all of the information that is stated directly. Get as much additional information as you can by filling in facts or ideas that are suggested but not stated in the printed words themselves.

"Never miss an opportunity to make comparisons while reading such material. Compare events, dates, people, places, products, ways of living, ways of fighting in wartime, ways in which countries have added to their holdings, ways in which countries are governed, and so on. Making comparisons causes facts in history and geography to stand out more sharply and more meaningfully."

HOW FOOD IS PRESERVED

(Pages 106-107)

Purposes

To give experience in: (1) identifying and using appropriate reading skills in working with a science selection that contains several different patterns of science writing—detailed facts, experiments, explanation of a process—all in the one selection; (2) recalling and organizing science facts; (3) generalizing a conclusion from an experiment; (4) interpreting a diagram; (5) listing steps in a process; (6) making use of headings in *Italics* in reading science.

Procedure

Follow the procedures in the student's book.

Answers

Activity 1—Recalling Facts

1. Primitive man had to kill food almost daily.
2. Man learned to salt and dry meats.
3. Canning was developed.
4. Man learned that a cool cellar would keep food fresh longer.

Activity 2—Main Idea and Proof

Main idea: Refrigeration is an excellent way of preserving food.

Proof: Keep one set of each of three foods uncovered in the refrigerator and another set uncovered on a kitchen shelf. Observe the foods each day for about a week. Evidence of spoiling will be seen in the foods not refrigerated.

Activity 3—Telling How a Refrigerator Works

1. Electric motor compresses Freon gas.
2. Compressed gas is cooled by air.
3. Gas then condenses to liquid in condenser.
4. Liquid Freon is pumped to upper part of refrigerator.
5. Freon evaporates in pipes of freezing compartment.
6. Evaporation absorbs heat from surrounding objects and produces cooling effect.
7. Freon in the form of gas flows back down to electric motor and pump, which again compresses it before it condenses to liquid.

Applying What You Have Learned About Reading Science Material

Use the suggestions below in a discussion with your students.

"Often in reading science material you will find several different patterns in one short article. It is of great importance that you identify each different pattern as you come to it. Once you have identified the pattern, set up your purpose and your reading procedure in terms of this particular pattern. Do not read the entire article in the same way. Adjust your purpose and reading procedure to different patterns as you have learned to do in working with the different types of science material in this book."

READING ALGEBRAIC EQUATIONS (Pages 108-109)

Purposes

(1) To awaken in students an awareness of reading skills needed in working with algebraic equations; (2) to give practice in translating equations into word statements, in translating word statements into equations, and in writing equations for problems.

Procedure

The procedures given in the student's book should be readily understood. The teacher will of course give extra assistance to students who need it.

If students have trouble computing the equations, encourage them to solve the difficulty by approaching it from the standpoint of what each equation means. Let them translate each equation into a sentence, and proceed to solve it logically.

The first example, for instance, may be translated from $N + 3 = 12$ to "a number (N) plus 3 equals 12." Logically, then, the number (N) is 3 less than 12, or 9: $\underline{N} = 12 - 3$, $\underline{N} = 9$. To check, they may substitute their answer for the unknown in the original equation: $9 + 3 = 12$, $12 = 12$.

For your convenience in making explanations, the solutions to the remaining examples follow.

$$5N = 30$$

$$\underline{N} = \frac{30}{5}$$

$$\underline{N} = 6$$

$$\frac{N}{8} = 3$$

$$\underline{N} = 3 \times 8$$

$$\underline{N} = 24$$

$$\frac{1}{2}N = 8$$

$$\frac{N}{2} = 8$$

$$\underline{N} = 8 \times 2$$

$$\underline{N} = 16$$

Answers

Translating Equations into Word Statements

Statements

Answers

- | | |
|---------------------------------------|-------------------------|
| 2. A number plus 12 equals 24. | 2. $\underline{N} = 12$ |
| 3. A number minus 8 equals 6. | 3. $\underline{B} = 14$ |
| 4. A number minus 7 equals 14. | 4. $\underline{B} = 21$ |
| 5. One third times a number equals 5. | 5. $\underline{C} = 15$ |
| 6. Three times a number equals 36. | 6. $\underline{d} = 12$ |
| 7. One half times a number equals 20. | 7. $\underline{C} = 40$ |
| 8. A number divided by 9 equals 3. | 8. $\underline{N} = 27$ |
| 9. A number divided by 6 equals 12. | 9. $\underline{d} = 72$ |
| 10. Seven times a number equals 63. | 10. $f = 9$ |

Translating Word Statements into Equations

Answers to Questions

Answers to Problems

- | | |
|---------------------------------------|-------------------------|
| 2. $\underline{N} + 12 = 36$ | 2. $\underline{N} = 24$ |
| 3. $\underline{N} - 9 = 18$ | 3. $\underline{N} = 27$ |
| 4. $5\underline{N} = 45$ | 4. $\underline{N} = 9$ |
| 5. $\frac{N}{7} = 4$ | 5. $\underline{N} = 28$ |
| 6. $3\underline{N} - 10 = 20$ | 6. $\underline{N} = 10$ |
| 7. $\frac{N}{3} = 12$ or $1/3 N = 12$ | 7. $\underline{N} = 36$ |
| 8. $\frac{N}{2} = 21$ or $1/2 N = 21$ | 8. $\underline{N} = 42$ |

Answers to QuestionsAnswers to Problems

9. $\underline{N} + 26 = 46$
 10. $\frac{\underline{N}}{3} = 27$ or $1/3 \underline{N} = 27$
 11. $2\underline{N} - 4 = 18$
 12. $\frac{\underline{N}}{2} = 35$
 13. $\underline{N} - 9 = 28$

9. $\underline{N} = 20$
 10. $\underline{N} = 81$
 11. $2\underline{N} = 22$;
 $\underline{N} = 11$
 12. $\underline{N} = 70$
 13. $\underline{N} = 37$

Writing Equations for Problems

Answers to QuestionsAnswers to Problems

1. $\underline{C} + 7 = 21$
 2. $2\underline{H} = 4 + 200$
 3. $6 + 1/2 \underline{U} = 20$
 4. $4/5 \underline{N} + \underline{N} = 144$
 5. $2/3 \underline{C} = 3 + 1/2 \underline{C}$

1. $\underline{C} = 14$
 2. $\underline{H} = 102$
 3. $\underline{U} = 28$
 4. $\underline{N} = 80$
 5. $\underline{C} = 18$

REVIEWING PREFIXES AND SUFFIXES

(Page 110)

Purposes

(1) To review prefixes and suffixes previously presented in Book II; (2) to give experience in recognizing changes in meanings made by adding prefixes and suffixes to words; (3) to give practice in identifying root words, prefixes, and suffixes when these elements are embedded in words.

Procedure

Instructions in the student's book should be sufficient in carrying out the activities on this page.

Answers

Reviewing Suffixes

- | | | |
|----------------|----------------|------------------|
| 1. suggestion | 4. information | 7. celebration |
| 2. convention | 5. generation | 8. reproduction |
| 3. evaporation | 6. examination | 9. refrigeration |

Reviewing Prefixes

- | | |
|---------------|---------------|
| 1. restate | 6. overreach |
| 2. uncommon | 7. miscount |
| 3. transport | 8. reproduce |
| 4. discourage | 9. underripe |
| 5. overeat | 10. represent |

Reviewing Suffixes

- | | |
|---------------|----------------|
| 1. regardless | 7. helpful |
| 2. government | 8. improvement |
| 3. steamer | 9. sweetness |
| 4. statement | 10. proudly |
| 5. helpless | 11. quickly |
| 6. wooden | 12. alarmist |

Finding Root Words, Prefixes, and Suffixes

- | | | | |
|--------------------|--------------------|----------------------|--------------------------|
| 1. <u>favorite</u> | 3. <u>imprison</u> | 5. <u>fingerling</u> | 7. <u>allowance</u> |
| 2. <u>resource</u> | 4. <u>dictator</u> | 6. <u>skillful</u> | 8. <u>disappointment</u> |

WORKING WITH SYNONYMS

(Page 111)

Purpose

To give students practice in recognizing and selecting synonyms from a set of key words.

Procedure

Students should have no trouble following the procedure as stated in the book.

Answers

- | | |
|---|--|
| 1. primary: first, earliest, prime | 6. unknown: strange, unexplained, unfamiliar |
| 2. admire: approve, honor, esteem | 7. strive: try, struggle, toil |
| 3. amusement: recreation, entertainment, game | 8. sturdy: strong, robust, vigorous |
| 4. remarkable: wonderful, noteworthy, extraordinary | 9. demand: ask, request, require |
| 5. endure: bear, withstand, undergo | 10. custom: fashion, style, manner |

- | | |
|--|--|
| 11. fortunate: lucky, successful,
favorable | 15. crouch: stoop, bend, cringe |
| 12. occupation: employment, work,
business | 16. compress: reduce, press,
condense |
| 13. permission: consent, permit,
leave | 17. clear: distinct, plain, evident |
| 14. clever: smart, skillful, quick-witted | 18. violent: frantic, frenzied,
furious |

WORKING WITH ANTONYMS (Page 112)

Purpose

To give students practice in recognizing and selecting antonyms for a set of key words.

Procedure

Students should have no difficulty in following the instructions given in the book.

Answers

- | | |
|-------------------------------|---------------------------------|
| 1. <u>similar</u> different | 19. <u>abrupt</u> gradual |
| 2. <u>profit</u> loss | 20. <u>simple</u> complex |
| 3. <u>expand</u> contract | 21. <u>mental</u> physical |
| 4. <u>recent</u> old | 22. <u>liquid</u> solid |
| 5. <u>permanent</u> temporary | 23. <u>approximate</u> exact |
| 6. <u>release</u> confine | 24. <u>shortened</u> lengthened |
| 7. <u>success</u> failure | 25. <u>mountain</u> canyon |
| 8. <u>majority</u> minority | 26. <u>import</u> export |
| 9. <u>demand</u> reject | 27. <u>many</u> few |
| 10. <u>brief</u> lengthy | 28. <u>fresh</u> stale |
| 11. <u>mild</u> harsh | 29. <u>generous</u> stingy |
| 12. <u>synonym</u> antonym | 30. <u>innocent</u> guilty |
| 13. <u>rear</u> front | 31. <u>separate</u> together |
| 14. <u>liability</u> asset | 32. <u>desert</u> swamp |
| 15. <u>powerful</u> weak | 33. <u>brave</u> cowardly |
| 16. <u>confirm</u> deny | 34. <u>prefix</u> suffix |
| 17. <u>frigid</u> torrid | 35. <u>fact</u> fancy |
| 18. <u>worthless</u> valuable | 36. <u>fierce</u> gentle |

WORKING WITH WORDS OF MULTIPLE MEANINGS (Page 113)

Purposes

(1) To develop awareness of different meanings of the same word when used in different subject fields; (2) to give experience in selecting a multiple-meaning word to match a definition in a specific subject area.

Procedure

Instructions in the student's book should be sufficient.

Answers

1 and 2. ruler	11 and 12. current	21 and 22. acute
3 and 4. mill	13 and 14. subject	23 and 24. revolution
5 and 6. solution	15 and 16. court	25 and 26. margin
7 and 8. settlement	17 and 18. order	27 and 28. graft
9 and 10. period	19 and 20. volume	29, 30, and 31. capital

CHOOSING THE RIGHT DEFINITION (Page 114)

Purpose

To give experience in selecting an appropriate definition of a word to fit into a given context.

Procedure

Students should be able to follow the instructions given in their book.

Answers

3 1	1 5	3 1	6 4
1. flip, flip	2. cell, cell	3. rear, rear	4. press, press
1 3	2 1	5 6	1 4
5. clue, clue	6. Creek, creek	7. bond, bond	8. rapid, rapids

FINDING THINGS IN A LIBRARY (Page 115)

Purposes

(1) To increase speed and facility in locating topics through the use of the alphabetical arrangement on the card catalog in a library; (2) to give practice in reading library cards.

Procedure

The directions in the students' books should give them sufficient guidance.

Answers

Finding the Right Drawer in the Card Catalog

1. Confederation of Canada	7	4. A book by L. M. Alcott	1
2. coulees of Canada	7	5. A book on California	5
3. Alexander Bell	4	6. Arachne, The Skilled Weaver	2

Subject Cards

MINING

Tyler, Arnold
The story of mining.
Blake Co., 1960.

PAINTING

Danvers, Alice K.
Learning to paint.
Rowan Press, 1955.

DANIEL BOONE

Laswell, J.
The life of Daniel Boone.
Vicker House, 1958.

Author Cards

Tyler, Arnold
The story of mining.
Blake Co., 1960.

Danvers, Alice K.
Learning to paint
Rowan Press, 1955.

Laswell, J.
The life of Daniel Boone.
Vicker House, 1958.

TAKING NOTES ON AN ENCYCLOPEDIA ARTICLE (Page 116)

Purposes

To give practice: (1) in taking notes on an encyclopedia article; (2) in giving a report from notes; (3) in deciding upon topics of paragraphs; (4) in selecting important details concerning these topics.

Procedure

The work required in carrying out the directions on this page may require extra explanation and guidance from you. It may be necessary to work with the less able students throughout their note-taking activities.

Answers

II. Growth

- A. 1 root, 100 stems, 30-120 ft. high
- B. Branches numerous toward top
- C. Some produce flowers and seeds yearly; others once in 50 or 100 years
- D. Stems sometimes 3 feet around
- E. Young sprouts grow fast, to 1 1/2 feet daily

III. Canebrakes of southern U.S.

- A. Native variety of evergreen grass
- B. Importation of plants, seeds banned except by Dept. of Agriculture, to keep out pests

IV. Bamboo as a food

- A. Sprouts in chop suey
- B. Orientals serve sprouts like asparagus or candy, or pickle them
- C. Grain like barley, used for food, China and India
- D. Chinese proverb, bamboo more plentiful when rice crop fails

V. Uses of stem

- A. Posts of houses
- B. Planks for floors, roofs, sides
- C. Fishing rods, waterpipes, bridges, cables
- D. Joints used for pails, cooking utensils
- E. Strips woven into mats, chairs, beds, other furniture
- F. Chopsticks, hairpins, phonograph needles, ribs of fans
- G. Fine paper from interior portions
- H. Hard outer skin—native knives and swords

SELECTING SOURCES OF INFORMATION (Page 117)

Purpose

To give experience in selecting sources of information for different types of topics.

Procedure

Students should be able to read and follow directions independently in doing the work on this page.

Answers

- | | | | | | |
|------|------|------|-------|-------|-------|
| 1. c | 2. d | 3. c | 4. c | 5. d | 6. c |
| 7. b | 8. d | 9. c | 10. d | 11. c | 12. c |

Procedures for Teaching

UNIT NINE

DEMOCRACY BEGINS AT HOME

(Pages 118-128)

Selection of Topic

Democracy was chosen as the subject of this unit because it is an important topic at this time, and because it offers opportunities to develop related selections in various subject fields.

FREEDOM COMES AGAIN

(Pages 118-119)

Purposes

(1) To provide a story that appeals to high school students; (2) to develop appreciation through such activities as drawing inferences in regard to deeper meanings, deciding upon the action the reader would have taken had he been in the character's place, deciding upon the emotion the reader would have felt if he had been the character, sensing reasons for a character's emotions, finding proof, explaining an author's meaning, comparing characters; (3) to give practice in rapid reading; (4) to check comprehension in relation to speed; (5) to provide leads to the articles that follow.

Procedure

Follow the usual procedure. The students are to write their answers to the Discussion Questions on a separate piece of paper.

Answers

Comprehension Questions

1. He decided everything.
2. The family talked things over and voted.
3. A trip to Vancouver
4. They were fugitives from Austria.
5. It was a breeding ground for salmon.
6. It was very low.
7. Salmon were needed for food.

8. Jimmy had failed to close the flume gate tightly.
9. He removed the driftwood that was blocking the gate.
10. Carl's belt

Discussion Questions

Question No. 3 has but one answer. The others may be answered variously.

1. (a) If we are going to live in a democracy, we should have it at home as well as elsewhere. (b) If young people learn how to live in a democracy at home, they will know how to live in a democracy outside of home.
2. (a) The fish were free to live comfortably again. (b) The fish were free to swim about wherever they wished in deep water.
3. Yes. Rose's speech about this country is proof.
4. (a) They were all brave. (b) All of them risked their lives in doing a service that would benefit others. (c) They all had thrilling adventures.

Additional Discussion Questions

The questions below may be used in conducting additional discussion:

1. Which one of the Mason family had the hardest struggle in deciding to buy the bonds instead of going to Vancouver? What makes you think this person had the hardest struggle?
2. Would you have voted for the bonds if you had been a member of the Mason family? If so, how would you have felt about it after you had voted?
3. If you had been Hal, would you have let Carl go down to remove the driftwood instead of going yourself? Why?
4. How do you think Jimmy felt when he came home and found what had happened? Why?
5. For whom else in the story had freedom come again? Explain.
6. How did each of the children serve Canada in this story?

Answers

1. Hal. (a) Hal told his father he wished he would decide for them. (b) He couldn't get the bands and parachute jumps out of his mind. (c) Hal went for a walk by himself instead of staying with the others.
2. Yes. (a) Glad because I had done my patriotic duty. (b) Disappointed about the trip.
3. (a) No. Hal was stronger, and should have faced the greatest danger. (b) Yes. It was safest for both boys that Carl pulled away the driftwood while Hal used his greater strength to hold Carl. If Hal had been working on the driftwood and had fallen, he might have pulled Carl along with him.

4. (a) He felt sad. His carelessness almost created a great loss. (b) He was ashamed of himself. Because of him, the fingerlings might have died.

5. Rose and Carl Hartz. (a) They were freed from the kind of government they had endured in Austria. (b) They had come to Canada where people have freedom to believe, vote, or work as they desire.

6. Hal and Carl saved the fish for future food. Jane planned a way to make the First of July eventful for the foreign children. Rose orally expressed her love for this country and its freedom.

DEMOCRACY-THE CANADIAN WAY OF LIFE

(Pages 120-121)

Purposes

This selection provides opportunity for practice on the following skills needed in working with social studies material: (1) finding main ideas; (2) taking notes; (3) summarizing; (4) applying citizenship information to life situations.

Procedure

Follow the instructions in the student's book.

Answers

Activity 1-Writing a Summary

Each summary will be worded differently. The essential elements of the summary are as follows:

Our forefathers paved the way for our democratic form of government. Advantages of our democracy are: equal opportunity for all; right to take part in the affairs of government; freedom of religious worship; freedom to have a jury trial; freedom of speech; and freedom of the press. Because of these freedoms Canada enjoys a high standard of living.

Activity 2-How Democracy Works in Your Own Community

Freedom of religion	Secret ballot	Trial by jury
Freedom of speech	Equal opportunity	Freedom of the press

THE STRUGGLE TO REACH SALMON CREEK

(Pages 122-123)

Purposes

To give experience in: (1) identifying and using appropriate reading skills when working with two patterns of science writing in the same selection-experiments and classification text; (2) restating an experiment and drawing a conclusion; (3) reasoning to a conclusion from given facts; (4) classifying science information; (5) reading science material under timed conditions; (6) checking comprehension of reading science material in relation to speed.

Procedure

There are two points at which it would be desirable for you to supplement the instructions in the student's book. First, call the students' attention to the fact that this selection offers them the last opportunity in this book to check their speed in reading science material. After they have finished reading and have computed their rate for this selection, have them compare their scores with those made while reading the science selection on pages 64-65. Discuss gains they have made.

The second point at which your help will be needed is in scoring comprehension. Allow 10 points for the answer to Activity 1, 10 points for each section of the chart in Activity 2, and 50 points for Activity 3. Ten points should be assigned to each of the conclusions in Activity 3; and perhaps 3 points assigned to each of the restated steps in the experiment, since there really are ten distinct steps. If the student has combined the steps and given a complete and accurate restatement of the experiment, however, allow him a full credit of 30 regardless of the number of steps stated.

Answers

Activity 1—Giving a Reason

They had died after reproducing.

Activity 2—Making a Chart of Classifications and Their Differences

One Parent Reproduction

Fission

One cell divides, forming two cells.

Budding

A little bump or bud breaks off to form a new plant or animal.

Layering

A long stem is covered with soil. This stem roots and sends off leaves, making a new bush.

Grafting

A twig from one fruit tree is set into another fruit tree. The twig will grow and bear its original fruit on the other tree.

Activity 3—Restating an Experiment and Drawing Conclusions

Experiment: (1) Get three or four glass jars. (2) Fill the jars from a pond or stream. (3) Put a little mud and a few weeds from the pond into the jars. (4) Set these jars in a warm place. (5) After a few days look at them carefully. (6) You will see tiny specks swimming around. (7) Take one of these animals out of the jar with a little water in a medicine dropper. (8) Drop one drop that contains just one animal in a glass. (9) Watch the animal closely. (10) Watch the clock also to check the length of time it takes the cell to divide.

- Conclusions: 1. One-celled animals reproduce by dividing themselves.
2. They divide again and again within short periods of time.

Applying What You Have Learned About Reading Science Material

You may wish to pass on to the students the suggestions below.

Scan each new section of content in your science book to find out what patterns it contains before you read it. If you find a mixture of paragraphs giving directions and paragraphs giving classifications, adjust your reading to these two different patterns.

Read every word in each direction in a paragraph that tells how to carry out experiments. Be sure that you can exactly do the things that you are told to do. Think ahead, also, to conclusions that you may be able to draw from the experiment.

In reading paragraphs about classifications, always try to get two things very clearly in mind: (1) the name of each classification and (2) what makes it different from the others.

You may find it helpful at times to restate an experiment in your own words and to write your own conclusions, as you did in Activity 3. A good study procedure to use in working with paragraphs that deal with classifications is to make a chart similar to the one you used in Activity 2.

REVIEWING SOME OF YOUR READING SKILLS IN MATHEMATICS (Page 124)

Purpose

To review reading skills for solving problems and reading graphs, formulas, and equations.

Procedure

Students should do this page independently and consider it to be a test of their reading skills while working with the particular aspects of mathematics represented.

Answers

Graph

- | | | | |
|----------------------|--------------|--------------|--------------|
| 1. Nearly 18 million | 2. 1951-1961 | 3. 1921-1931 | 4. 1951-1961 |
|----------------------|--------------|--------------|--------------|

Problem

To find: How many young fish this
salmon produces.

Estimate: 1,500

Given: 10,000 eggs; 15% develop

Process: X

Answer: 1,500

Formula

Formula: $D = rt$

Substitution: $D = 8 \times 72$

Answer: 576 miles

Equation

Equation: $2s = 128$

Answer: 64

MAKING GENERALIZATIONS

(Page 125)

Purpose

To give experience in arriving at a generalization after reading several related facts about a topic.

Procedure

Give additional assistance to any students who do not quite understand the concept of a generalization.

Answers

2. Corn is grown in all major continents in the world.
3. Most of the large cities of the world are situated near navigable bodies of water.
4. The ocean is filled with large and small animals and plants.

READING KEY WORDS ONLY

(Page 126)

Purpose

To develop a new speed reading technique—that of reading key words only.

Procedure

Directions in the student's book should provide sufficient guidance for working with this page.

Answers

- | | |
|---|---|
| 1. African lung-fish | 6. Eighteen inches deep |
| 2. He hibernates and builds his sleeping-place. | 7. He sends out a slime. |
| 3. He has two pairs of limbs and a powerful tail. | 8. On his own fat |
| 4. He has lungs. | 9. Cut him out, home and all, and store him. |
| 5. When rains cease | 10. He is put in a tank of warm water, and appears undisturbed. |

SKIMMING WITH THE USE OF KEY WORDS

(Page 127)

Purpose

To give practice in skimming with the use of key words.

Procedure

Emphasize the third paragraph in the instructions especially. Supervise the reading of the selection to make sure that all students are skimming rapidly and skipping unimportant words.

Answers

- | | |
|--|-----------------------------------|
| 1. Ireland | 2. 8 or 9 |
| 3. York | 4. furniture factory |
| 5. to paint pictures of North American Indians | |
| 6. to study the works of great painters | 7. Sir George Simpson |
| 8. canoe | 9. his ability to paint portraits |
| 10. glare of sun on snow | |

CRITICAL READING

(Page 128)

Purposes

(1) to acquaint students with the meaning of the term critical reading; (2) to give experience in reading critically and in passing judgment upon statements made in a selection.

Procedure

Expand the discussion of critical reading and emphasize its techniques: seeking deeper meanings, deciding upon fact and opinion, reasoning, questioning, seeking proofs.

Answers

Activity 1—Thinking Critically About What You Read

1. No. He offers no facts or experimental data to prove his statement.
2. No.
3. Probably not, because living conditions would be so different.
4. No. They wouldn't be accustomed to the kind of food we have.

5. From the garage of a person in contact with spacemen. He returned it to his garage. (Spacemen couldn't pay a public garage or chauffeur in their kind of money.)

6. From a steamship

7. No. These people living in isolation from earth would have developed their own language. Even people in different parts of our earth speak different languages.

8. (a) I would like to have gone with him on one of these trips myself. (b) I would like to have the account of a group of scientists who had accompanied him on one of these trips. (c) I would like to see television pictures based on the experience of the author. (d) I would like to read the account in a newspaper noted for its integrity and truthfulness in reporting.

9. (a) He might have wanted to make money from the sales of the book. (b) He might have enjoyed sharing his world of fancy with others.



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157
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